Cumulative Assessments on UNIT 10

Cumulative Assessment  Till lessons (1&2) unit 10

1. Choose the correct answer.

a. $0.06 =$ ....

A. $\frac{6}{10}$ B. $\frac{60}{100}$ C. $\frac{6}{100}$ D. 0.6

b. $\frac{2}{100} =$ ....

A. 0.2 B. 0.20 C. $\frac{20}{10}$ D. 0.02

c. $7 \times \frac{1}{10} =$ ....

A. $\frac{7}{10}$ B. 0.07 C. $7 + \frac{1}{10}$ D. $\frac{2}{10} + \frac{6}{10}$

d. $\frac{3}{5} + \frac{1}{5} =$ ....

A. $\frac{4}{10}$ B. $\frac{4}{5}$ C. $3 \times \frac{1}{5}$ D. $\frac{31}{5}$

e. $\frac{18}{\ldots} = 2$

A. 2 B. 18 C. 9 D. 6

2. Complete.

a. $\frac{42}{8} =$ .... (as a mixed number)

b. .... $- 1\frac{2}{5} = 3\frac{1}{5}$

c. $2\frac{3}{4} - \frac{1}{4} =$ ....

d. $\frac{5}{5} = \frac{\ldots}{9}$

e. $\frac{7}{100} =$ .... (as a decimal)

f. $\frac{3}{10} =$ .... (as a decimal)

3. Write each of the following as a decimal.

a. $\frac{8}{100} =$ ....

b. $\frac{5}{10} =$ ....

c. $\frac{15}{100} =$ ....

d. $\frac{35}{100} =$ ....

e. $\frac{1}{100} =$ ....

f. $\frac{7}{10} =$ ....

4. Write each of the following as a fraction.

a. $0.8 =$ ....

b. $0.09 =$ ....

c. $0.18 =$ ....

d. $0.74 =$ ....

e. $0.4 =$ ....

f. $0.31 =$ ....

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Cumulative Assessment 10 Till lessons (3&4) unit 10

1. Write the value and the place value of the circled digit in each of the following.

a. 7.45 .... , ...

b. 13.73 .... , ...

c. 451.7 .... , ...

d. 202.94 .... , ...

2. Write in word form.

a. 7.18 ....

b. $1 + 0.7 + 0.03$ ....

c. 6 ones and 2 hundredths ....

3. Write in standard form.

a. $5 + 0.6 + 0.02$ ....

b. Seven and eight hundredths ....

c. 4 Ones ,7 Tenths and 4 Hundredths ....

4. Choose the correct answer.

a. The place value of the digit 8 in the number 19.28 is ....

A. $\frac{8}{10}$ B. 0.08 C. Tenths D. Hundredths

b. The value of the digit 5 in the number 3.54 is ....

A. 0.5 B. 0.05 C. Tenths D. Hundredths

c. $\frac{5}{3}$ ◯ $\frac{5}{6}$

A. > B. < C. =

d. $\frac{1}{100} =$ ....

A. 0.1 B. 0.10 C. 0.01 D. 1.01

e. $3 \times \frac{1}{4} =$ ....

A. $\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}$ B. $\frac{3}{12}$ C. $3+\frac{1}{4}$ D. $\frac{3}{4}$

5. Find the result of each of the following.

a. $\frac{4}{9}+\frac{1}{9}+1+\frac{2}{9} =$ ....

b. $2-\frac{1}{3}-\frac{1}{3} =$ ....

c. $2\frac{3}{5}+3\frac{4}{5} =$ ....

d. $7\frac{4}{7}-2\frac{1}{7} =$ ....

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Cumulative Assessment  Till lessons (5&6) unit 10

1. Choose the correct answer.

a. $3 + 0.08 =$ ....

A. 0.38 B. 3.8 C. 3.08 D. 38

b. $2\frac{1}{5} + 1\frac{2}{5} =$ ....

A. $3\frac{3}{10}$ B. $3\frac{3}{5}$ C. $1\frac{1}{5}$ D. $3\frac{1}{5}$

c. 47 Hundredths = ...

A. 0.47 B. 4.7 C. $\frac{47}{10}$ D. 0.74

d. $5\frac{2}{10} =$ .... (as a decimal number)

A. $\frac{52}{10}$ B. 0.52 C. 5.2 D. $2\frac{5}{10}$

e. $\frac{3}{10}$ ◯ $\frac{3}{100}$

A. > B. < C. =

f. The place value of the digit 7 in the number 43.67 is ....

A. Tenths B. Hundredths C. 0.7 D. 0.07

2. Write each of the following in a fraction form.

a. 1.7 = ... b. 5.24 = ... c. 11.87 = ...

d. 2.05 = ... e. 14.9 = ... f. 20.23 = ...

3. Complete.

a. 2 = ... Tenths

b. 3.7 = ... Hundredths

c. 10.4 = ... Hundredths.

d. .... = 79 Tenths

e. 420 Hundredths = ...

f. $\frac{735}{100} =$ .... Hundredths

4. Write the fractions : $\frac{5}{10}$, $\frac{5}{12}$, $\frac{5}{11}$, $\frac{5}{15}$, $\frac{5}{7}$ in an ascending order.

5. Mervat has a brother of height $70\frac{2}{10}$ cm.

a. Express the height in the form of a decimal.

b. How can you rewrite $70\frac{2}{10}$ cm using tenths only ?

....

....

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Cumulative Assessment 12 Till lesson 7 unit 10

1. Choose the correct answer.

a. $\frac{7}{9}+\frac{2}{9}=$ ....

A. 1 B. $\frac{9}{18}$ C. $\frac{1}{2}$ D. $\frac{5}{9}$

b. The value of the digit 3 in the number 5.23 is ....

A. Tenths B. Hundredths C. $\frac{3}{10}$ D. $\frac{3}{100}$

c. 7 Tenths is equivalent to ....

A. 0.70 B. $\frac{7}{100}$ C. 0.07 D. $\frac{77}{100}$

d. Which of the following is not equivalent to $1\frac{3}{10}$?

A. 1.3 B. 1.30 C. 1.03 D. $1\frac{30}{100}$

e. $3\frac{2}{7}=$ .... (as an improper fraction)

A. $\frac{42}{7}$ B. $\frac{21}{3}$ C. $\frac{13}{7}$ D. $\frac{23}{7}$

2. Complete.

a. $7\frac{2}{9}+$ .... $=8\frac{1}{9}$

b. 2.19 = ... Hundredths.

c. $\frac{3}{8}=\frac{18}{\ldots}$

d. .... $-1\frac{1}{4}=1\frac{1}{4}$

e. $\frac{3}{10}$ is equivalent to ....

f. 17 Tenths = ...

g. $\frac{5}{7}=\frac{3}{7}+\frac{1}{7}+$ ....

h. $1-\frac{4}{9}=$ ....

i. 2 + 0.2 + 0.02 = ...

j. 4.13 = 4 + 0.1 + ...

k. Two and nine Tenths = ...

l. $\frac{17}{5}=$ .... (as a mixed number)

3. Write in expanded form each of the following.

a. 3.79 ....

b. Six and four hundredths ....

c. 4 Ones, 8 Tenths and 9 Hundredths ....

4. Write an equivalent fraction for each.

a. $\frac{3}{10}=$ ....

b. $\frac{70}{100}=$ ....

c. $\frac{5}{10}=$ ....

d. $\frac{90}{100}=$ ....

e. $\frac{8}{10}=$ ....

f. $\frac{10}{100}=$ ....

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Cumulative Assessment 13 Till lessons (8 to 10) unit 10

1. **Complete.**

a. 0.22 = ... Hundredths

b. $2\frac{1}{11} + 1\frac{2}{11} =$ ....

c. 3.7 = ... (as a mixed number)

d. $4 \times \frac{1}{5} =$ ....

e. Three and twenty-two hundredths = ... (as a decimal number)

f. The value of the digit 7 in the number 3.74 is ....

2. **Choose the correct answer.**

a. 5.03 ◯ 5 + 0.3

A. > B. < C. =

b. 2.4 ◯ 24 Tenths

A. > B. < C. =

c. 0.3 > ....

A. 0.30 B. 0.25 C. 0.52 D. 0.7

d. $3 + \frac{1}{5} + 1 + \frac{3}{5} =$ ....

A. $31\frac{4}{5}$ B. $4\frac{4}{10}$ C. $4\frac{4}{5}$ D. $31\frac{13}{5}$

e. $5\frac{7}{11} - 3\frac{5}{11} =$ ....

A. $8\frac{2}{11}$ B. $2\frac{2}{11}$ C. $8\frac{12}{22}$ D. $2\frac{12}{11}$

f. 2 Ones and 3 Tenths = ...

A. 3.2 B. 0.23 C. 0.32 D. 2.3

3. A rectangle of length $7\frac{1}{6}$ cm and width $2\frac{1}{6}$ cm. Calculate its perimeter.

4. Nermine ate 0.7 of her food. Her brother at $\frac{3}{10}$ of his food, if they have the same amount of food. Who ate more ?

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Cumulative Assessment  Till lessons (11&12) unit 10

1. Find the result.

a. $2\frac{5}{10} + 3\frac{21}{100} =$ ....

b. $\frac{2}{10} + \frac{21}{100} + 2\frac{5}{10} =$ ....

c. $2\frac{3}{5} + 7\frac{1}{5} =$ ....

d. $\frac{32}{100} + \frac{24}{100} + \frac{7}{10} =$ ....

e. $5 - 4\frac{2}{5} =$ ....

f. $2 + 1\frac{1}{7} + 3 + 4\frac{4}{7} =$ ....

2. Complete.

a. $\frac{40}{100} = \frac{\dots}{10}$

b. 7.27 = ... (in word form)

c. $\frac{9}{\dots} = 1$

d. $2 - \frac{1}{3} =$ ....

e. $8\frac{7}{9} -$ .... $= 2\frac{1}{9}$

f. $9 + 0.07 + 0.8 =$ ....

g. The place value of the digit 7 in the number 13.57 is ....

3. Choose the correct answer.

a. $\frac{7}{10} + \frac{2}{10} = \frac{\dots}{100}$

A. 9 B. 90 C. 5 D. 50

b. $\frac{3}{10} + \frac{7}{10} =$ ....

A. $\frac{10}{100}$ B. $\frac{1}{10}$ C. 10 D. 1

c. $\frac{7}{8} >$ ....

A. $\frac{8}{8}$ B. $\frac{1}{2}$ C. $1\frac{1}{4}$ D. $\frac{7}{6}$

d. $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} =$ ....

A. $\frac{5}{8}$ B. $\frac{5}{40}$ C. $\frac{6}{8}$ D. $\frac{1}{40}$

e. $\frac{5}{10} + \frac{3}{100} = \frac{\dots}{100}$

A. 35 B. 53 C. 503 D. 305

f. Seventeen tenths = ... (as a decimal)

A. 0.17 B. 1.7 C. 7.1 D. $1\frac{7}{10}$

4. Amany has $\frac{7}{10}$ meter of cloth, she went to the shop and bought $\frac{35}{100}$ meter of cloth. How much cloth Amany has now?

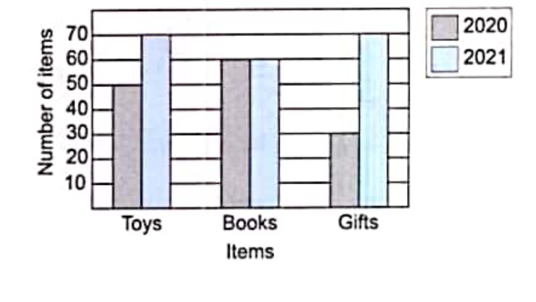
....

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Cumulative Assessments on UNIT 11

Cumulative Assessment 15 Till lesson 1 unit 11

1. Choose the correct answer.



a. The opposite graph shows ________

A. pictograph.

B. line plot.

C. bar graph.

D. double bar graph.



b. $\frac{3}{100}$ = ________

A. 0.3 B. 0.03 C. 3 D. 30

c. $3\frac{1}{3} + 1\frac{1}{3} =$ ________

A. $4\frac{2}{3}$ B. $4\frac{2}{6}$ C. $2\frac{2}{6}$ D. $2\frac{2}{3}$

d. $\frac{7}{9}$ ________ 1

A. > B. < C. =

e. Five and one hundredths = ________

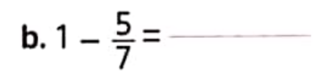
A. 5.1 B. 51 C. 5.01 D. $5\frac{1}{10}$

2. Complete.

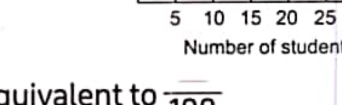
Favorite ice cream flavor

Girls / Boys — Flavors: Vanilla, Chocolate — Number of students: 5 10 15 20 25 30 35

a. In the opposite double bar graph, the difference of the number of boys between vanilla and chocolate is ________ boys.



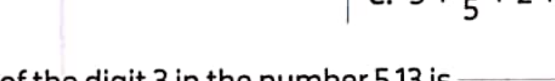
b. $1 - \frac{5}{7} =$ ________



c. $\frac{6}{10}$ is equivalent to $\frac{\quad}{100}$

d. $7 \times \frac{1}{8} =$ ________

e. $3 + \frac{1}{5} + 2 + \frac{3}{5} =$ ________



f. The place value of the digit 3 in the number 5.13 is ________

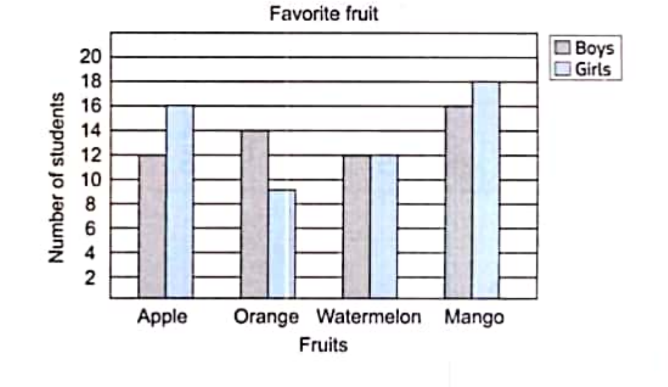


g. $\frac{14}{100} =$ ________ (as a decimal)

h. $5\frac{3}{4} =$ ________ (as an improper fraction)

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3. The following data shows the favorite fruit between boys and girls. Observe the double bar graph, then answer the questions.



a. How many boys liked orange ?

b. How many girls liked apple ?

c. Which fruit is liked the most by boys ?

d. Which fruit is liked the least by girls ?

e. Which fruit shows the same number of boys and girls ?

f. What is the total number of boys and girls liked orange ?

g. How many more girls liked mango than watermelon ?

---

4. Find the result of each of the following.

a. $2\frac{1}{3}+1\frac{2}{3}=$ ....

b. $2-1\frac{4}{5}=$ ....

c. $5\times\frac{1}{7}=$ ....

d. $1-\frac{1}{7}-\frac{2}{7}=$ ....

e. $\frac{1}{9}+\frac{2}{9}+\frac{3}{9}=$ ....

f. $5\frac{7}{8}-3\frac{5}{8}=$ ....

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5. Arrange in an ascending order.

a. $\frac{7}{9}$, $\frac{5}{9}$, $\frac{4}{9}$, $\frac{6}{9}$, $\frac{2}{9}$

....

b. $\frac{3}{11}$, $\frac{3}{7}$, $\frac{3}{5}$, $\frac{3}{8}$, $\frac{3}{10}$

....

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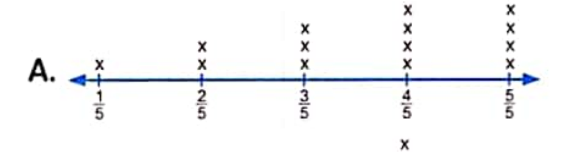
Cumulative Assessment 16 Till lessons (2 to 4) unit 11

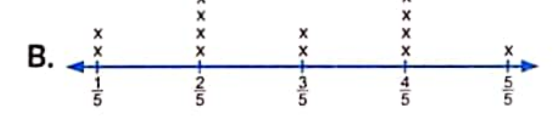
1. Choose the correct answer.

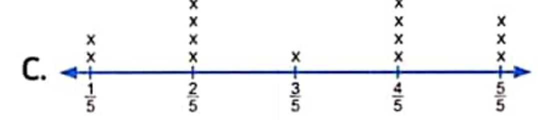
a. The line plot which shows the following data

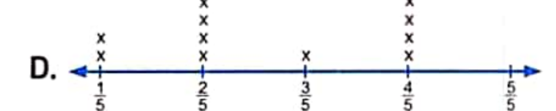
$\frac{4}{5}$	$\frac{2}{5}$	$\frac{4}{5}$	$\frac{2}{5}$	1	$\frac{4}{5}$	$\frac{2}{5}$	1	$\frac{1}{5}$	$\frac{3}{5}$	$\frac{2}{5}$	1	$\frac{4}{5}$	$\frac{1}{5}$	$\frac{4}{5}$

is ....

A. 

B. 

C. 

D. 

b. Fifty-seven hundredths in standard form is ....

A. 5.7 B. 0.57 C. 57 D. 0.75

c. $\frac{8}{10} = \frac{4}{\square}$

A. 20 B. 10 C. 5 D. 2

d. $0 \bigcirc \frac{2}{7}$

A. > B. < C. =

e. Which of the following fractions is less than $\frac{1}{2}$?

A. $\frac{7}{7}$ B. $\frac{9}{10}$ C. $\frac{1}{4}$ D. $\frac{4}{8}$

f. The model which represents $\frac{5}{6}$ is ....

A. B.

C. D.

2. Complete.

a. In the opposite line plot, the number of students who studied 2 hours or more is .... students.

Studying time (in hours)

1 $1\frac{1}{2}$ 2 $2\frac{1}{2}$ 3

Key Each x = 1 student

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b. $\frac{34}{100} + \frac{4}{10} =$ ______

c. 70 tenths = ______

d. $\frac{7}{8} = \frac{1}{8} + \frac{3}{8} +$ ______

e. $\frac{3}{5} = \frac{\quad}{15}$

f. $\frac{19}{5} =$ ______ (as a mixed number)

g. $\frac{38}{100} =$ ______ (as a decimal)

h. The value of the digit 6 in the number 2.16 is ______

i. $5\frac{3}{4} =$ ______ (as an improper fraction)

3. **Find the result.**

a. $2 - \frac{3}{7} - \frac{4}{7} =$ ______

b. $2\frac{1}{5} + 1\frac{3}{5} =$ ______

c. $3\frac{1}{4} - 2\frac{3}{4} =$ ______

d. $1 + 2\frac{1}{7} + 3\frac{4}{7} =$ ______

4. **Arrange in a descending order.**

a. $\frac{3}{7}$, $\frac{5}{7}$, $\frac{1}{7}$, $\frac{6}{7}$, $\frac{2}{7}$

______

b. $\frac{2}{5}$, $\frac{2}{7}$, $\frac{2}{3}$, $\frac{2}{10}$, $\frac{2}{6}$

______

5. **The following data shows the jump distances for 5 students (in meters) in two rounds.**

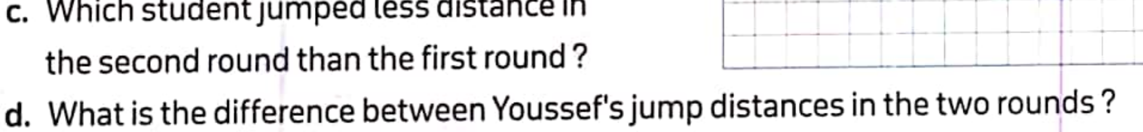
Name / Rounds	Noura	Maged	Sama	Youssef	Ramy
1st Round	$\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{1}{2}$
2nd Round	$\frac{3}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{4}$	1

Represent these data , then answer the questions.

a. Which student jumped the highest distance in the first round ?

b. Which student jumped the highest distance in the second round ?

c. Which student jumped less distance in the second round than the first round ?



d. What is the difference between Youssef's jump distances in the two rounds ?

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Cumulative Assessments on UNIT 12

Cumulative Assessment  Till lessons (1 & 2) unit 12

1. Choose the correct answer.

a. The name of the opposite figure is ....



A. $\overleftrightarrow{AB}$ B. $\overline{AB}$ C. $\overrightarrow{BA}$ D. $\overrightarrow{AB}$

b. The opposite two line are ....

A. intersecting

B. parallel

C. perpendicular

D. intersecting and not perpendicular

c. $7\frac{1}{3} =$ .... (as an improper fraction).

A. $\frac{22}{3}$ B. $\frac{21}{3}$ C. $\frac{71}{3}$ D. $\frac{15}{3}$

d. $\frac{3}{7}$ ◯ $\frac{3}{5}$

A. > B. < C. =

e. $3\frac{2}{10} = 3\frac{__}{100}$

A. 2,000 B. 200 C. 20 D. 2

f. 3.2 = ... tenths.

A. 3.2 B. 320 C. 302 D. 32

2. Complete.

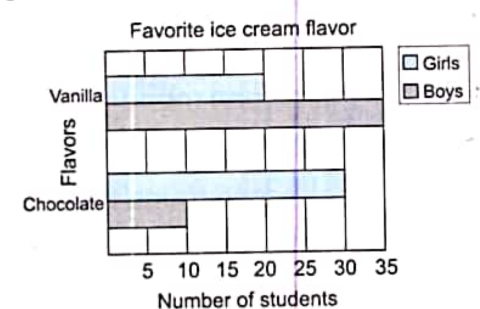
a. The name of •————→ is a ....

b. The two lines ←——→ are ....

c. $7 \times \frac{1}{9} =$ ....

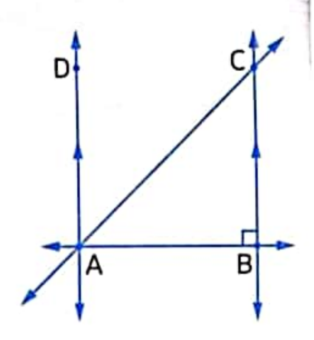
d. $\frac{2}{10} + \frac{31}{100} =$ ....

e. In the opposite double bar graph, the sum of the number of boys in vanilla and chocolate is ....



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3. **In the shape at the right, identify :**



a. a pair of parallel lines.

b. a pair of perpendicular lines.

c. a pair of intersecting lines.

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4. **a. Draw $\overleftrightarrow{XY}$ is parallel to $\overleftrightarrow{AB}$.**



b. Draw $\overleftrightarrow{LM}$ is perpendicular to $\overleftrightarrow{EF}$.

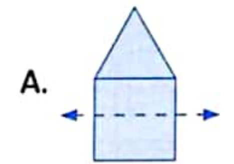
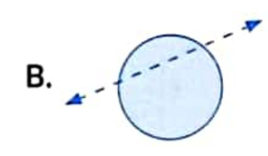
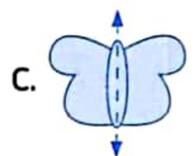
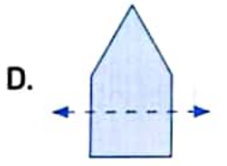


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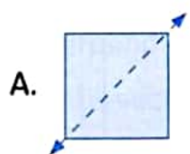
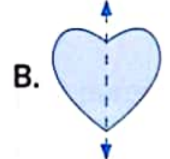
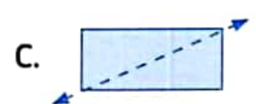
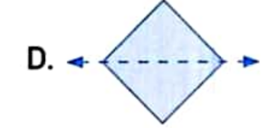
Cumulative Assessment  Till lessons (3 to 5) unit 12

1. Choose the correct answer.

a. Which of the following figures shows a line of symmetry ?

A.  B.  C.  D. 

b. All the following figures show a line of symmetry except ....

A.  B.  C.  D. 

c. All the following figures show one line of symmetry except .... has more than one line of symmetry.

A.  B.  C.  D. X

d. All perpendicular lines also ....

A. parallel B. intersecting C. not intersecting D. not perpendicular

e. $3\frac{4}{10}$ is equivalent to ....

A. $3\frac{40}{10}$ B. $3\frac{4}{100}$ C. $3\frac{40}{100}$ D. 3.04

f. $\frac{5}{6} = \frac{1}{6} + \frac{2}{6} +$ ....

A. $\frac{1}{6}$ B. $\frac{2}{6}$ C. $\frac{3}{6}$ D. $\frac{4}{6}$

2. Complete.

a. $3 \times \frac{1}{5} =$ ....

b. $3\frac{2}{7} + 1\frac{3}{7} =$ ....

c. $1 - \frac{4}{5} =$ ....

d. $2\frac{4}{5} =$ .... (as an improper fraction)

e. The place value of the digit 5 in the number 3.25 is ....

f. The word form of 30.03 is ....

CamScanner الممسوحة ضوئيا بـ

3. **Find.**

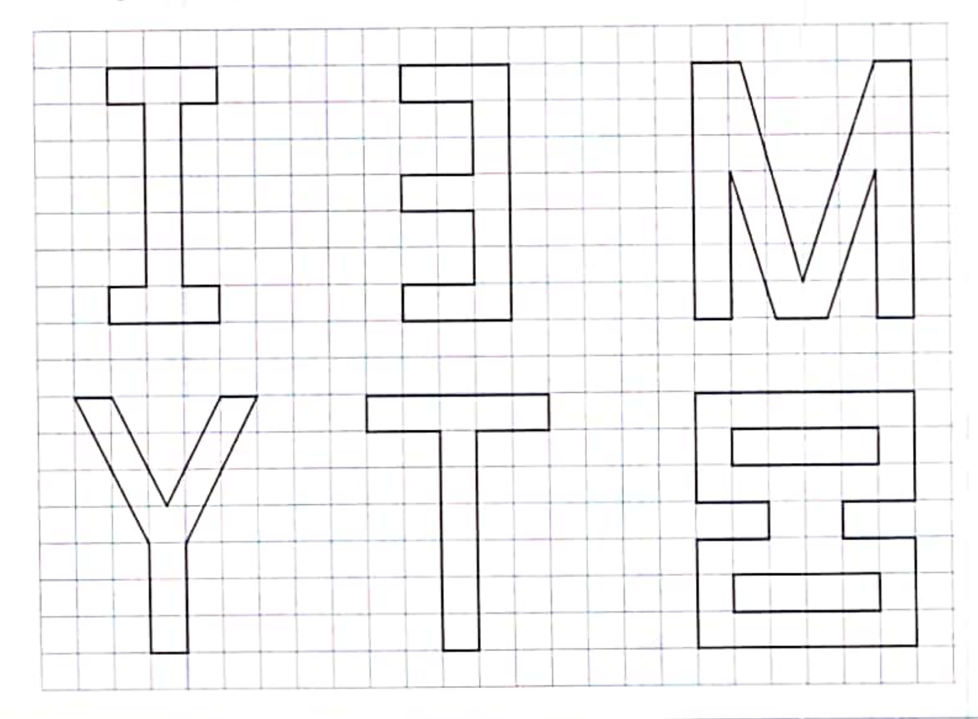
a. $5 + 1\frac{1}{5} + 2\frac{2}{5} + 2 =$ ....

b. $2 - \frac{1}{5} - \frac{1}{5} =$ ....

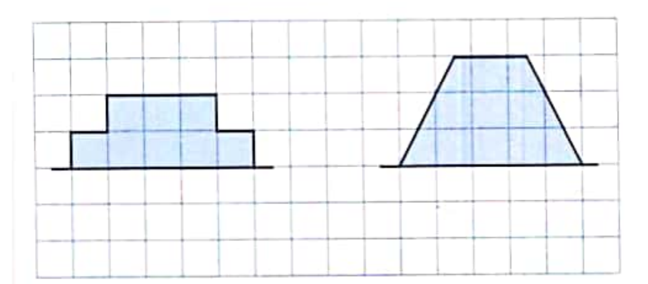
c. $7\frac{5}{9} - 5\frac{4}{9} =$ ....

d. $5\frac{4}{10} + 3\frac{1}{10} =$ ....

4. **Draw a line of symmetry in each of the following figures.**



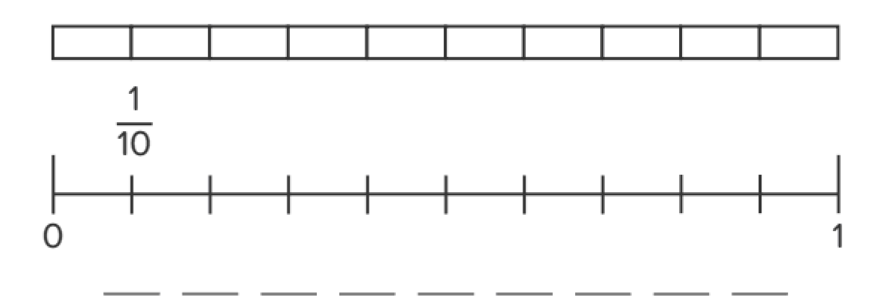
5. **In each picture, you can see half of the shape and the line of symmetry. Draw the rest of each shape.**



الممسوحة ضوئيا بـ CamScanner

Concept (1): Defining Decimals

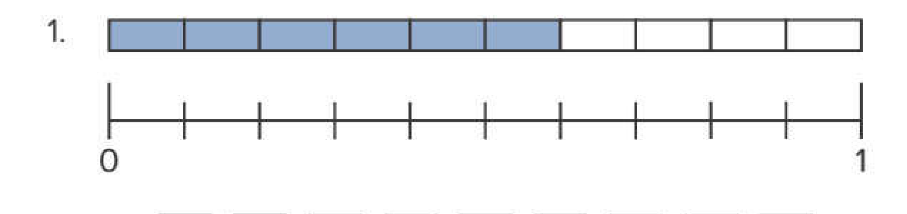
Break It Apart Follow along with your teacher to fill in the fractions and decimals on the number line.



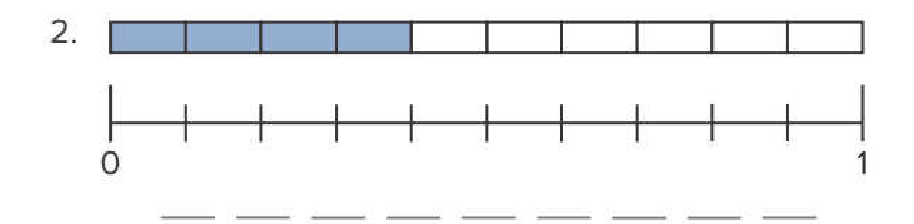


Connect the Parts Record what fraction and decimal are shown.

1.

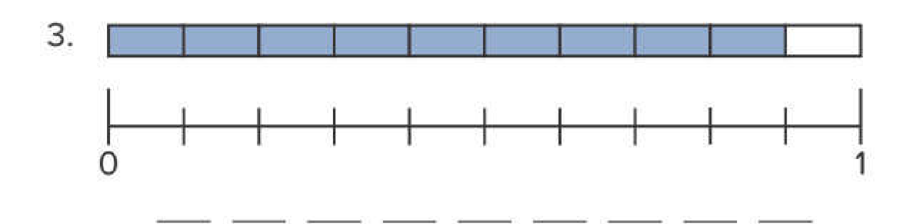


2.





3.







Shade in the model to represent the decimal.

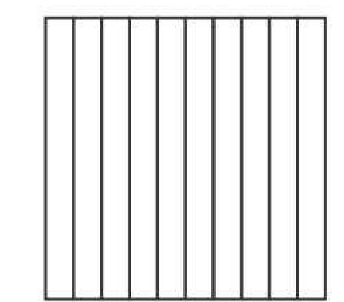
4. 0.7



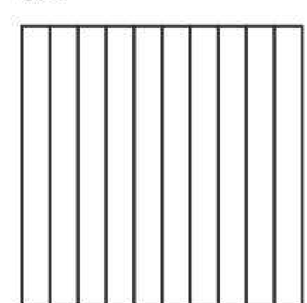
5. 0.5



6. 0.6

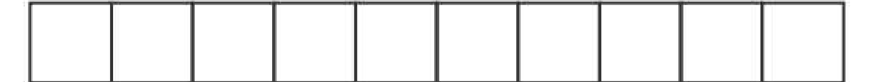


7. 0.2

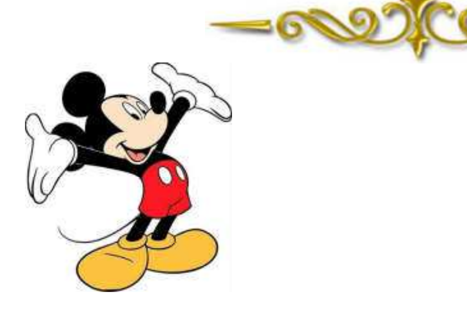




Hosam had a 1-meter piece of fabric. Of this piece, 0.2 meter had flowers on it, 0.6 meter was plain blue, and the rest had stars. Color in the strip of Hosam's fabric based on the description.



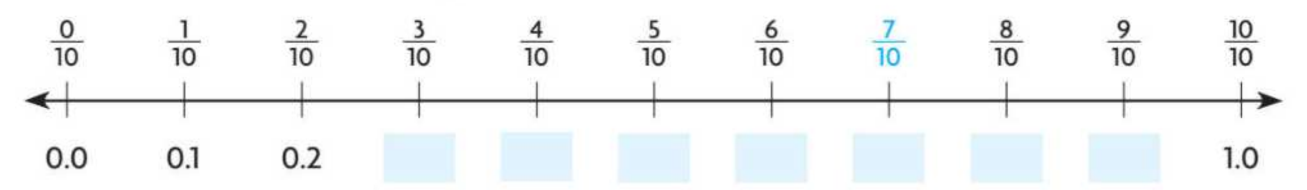
What decimal of Hosam's strip had stars? ____________





Use a number line.

Label the number line with decimals that are equivalent to the fractions. Locate the point $\frac{7}{10}$.



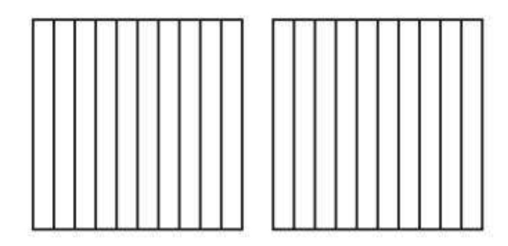
________ names the same amount as $\frac{7}{10}$.



Use a model and a place-value chart.

Fraction

Shade $1\frac{6}{10}$ of the model.



Write: ________________

Read: one and six tenths

Decimal

$1\frac{6}{10}$ is 1 whole and 6 tenths.

Think: Use the ones place to record wholes.

Ones	.	Tenths	Hundredths
	.		

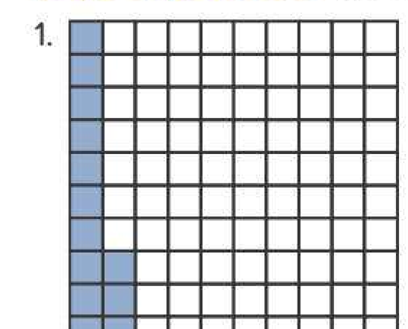
Write: ________________

Read: ________________

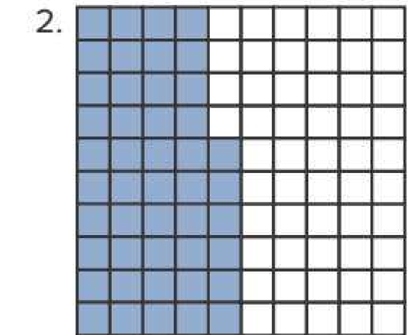


More Cups of Rice Record what decimal is shown.

1.

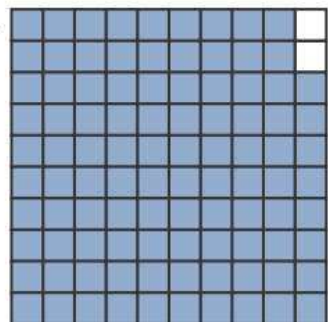


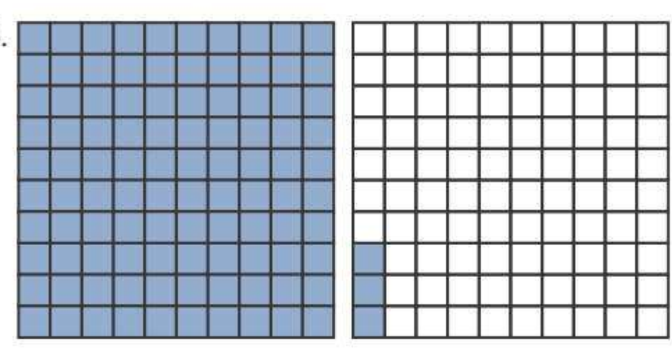
2.





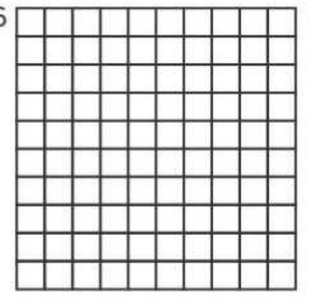


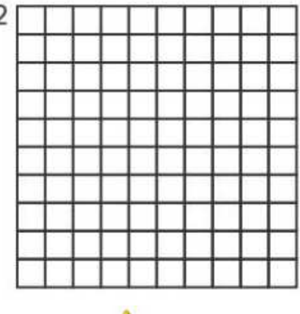
3. 

4. 



Shade in the grids to show the decimal stated.

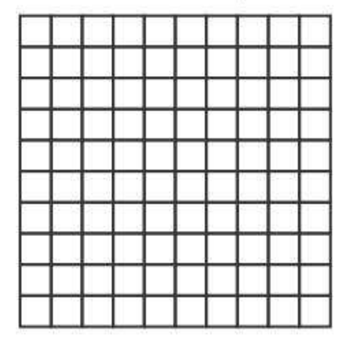
5. 0.46 

6. 0.72 





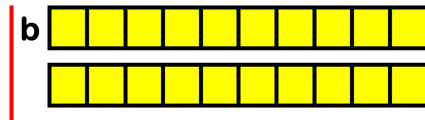
9. Basem had a quilt that his mother bought for him. 0.35 of it was colored blue. 0.4 of it was red. The rest was yellow. Color in the quilt to match the decimals described.



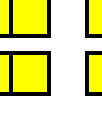
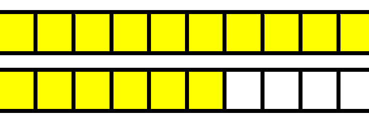
10. What decimal of Basem's quilt was yellow? ________



Circle the decimal that represent the shaded part:

a 

13.0 0.7 1.3

b  

4 3.6 36



Writing About Math Use the number to answer the questions: **532.89**

1. What is the value of the 3? ________
2. What digit is in the Hundredths place? ________
3. What is the value of the digit in the Hundreds place? ________
4. What digit is in the Tenths place? ________



Use the example in the chart to help you answer the following problems.

Standard Form	Word Form	Unit Form	Expanded Form
4.23	four and twenty-three hundredths	4 Ones, 2 Tenths, 3 Hundredths	4 + 0.2 + 0.03



Write the numbers in word form.

1. 4.53

____

2. 0.48

____

3. 2 + 0.1 + 0.03

____

Write the numbers in unit form.

4. 4.52

____

5. seven and thirty-four hundredths

____

6. sixty-nine hundredths

____

Write the numbers in expanded form.

7. 2.04

____

8. two and fifty-Hundredths

____

9. 5 Ones, 6 Tenths, 8 Hundredths

____

Write the numbers in standard form.

10. 7 Ones, 9 Hundredths

____

11. 5 + 0.5 + 0.01

____

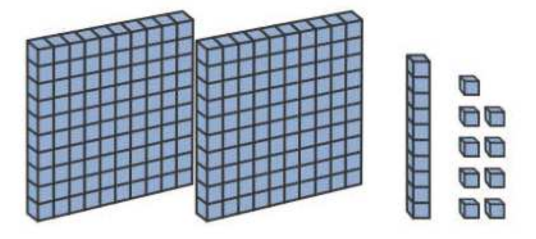
12. nine and forty-three Hundredths

____



Fill in the blanks to match the decimal models.

Example:



Standard form: 2.19

Word form: two and nineteen hundredths

Unit form: 2 Ones, 1 Tenth, 9 Hundredths

Expanded form: 2 + 0.1 + 0.09



13.



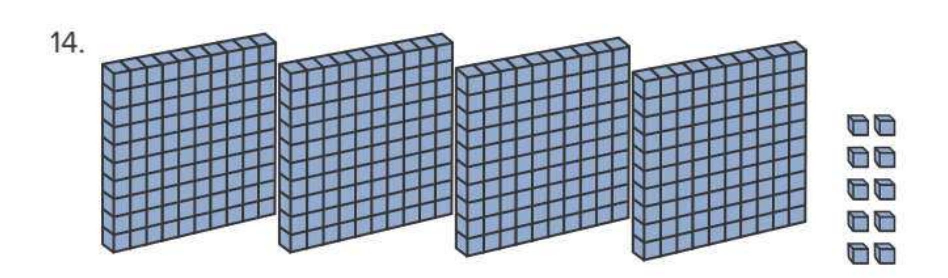
Standard form: ____________________

Word form: ____________________

Unit form: ____________________

Expanded form: ____________________

14.



Standard form: ____________________

Word form: ____________________

Unit form: ____________________

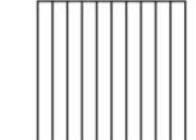
Expanded form: ____________________



Homework

1. Write five tenths as a fraction and as a decimal.

Fraction: ______ Decimal: ______

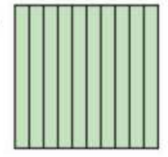
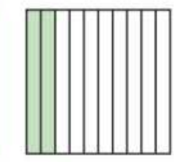


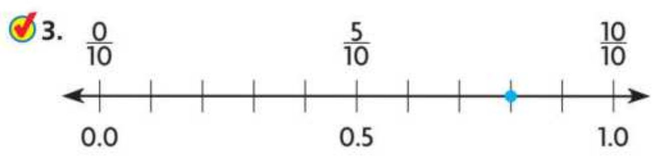
Ones	.	Tenths	Hundredths
	.		





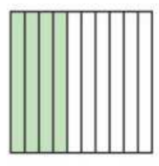
Write the fraction or mixed number and the decimal shown by the model.

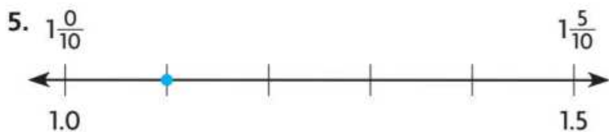
2.  

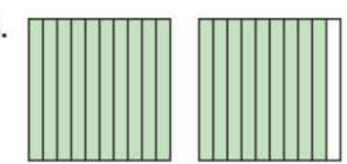
3. 

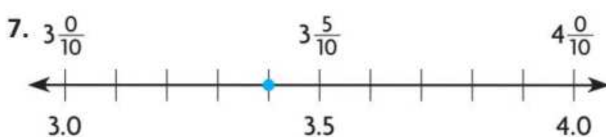


Write the fraction or mixed number and the decimal shown by the model.

4. 

5. 

6. 

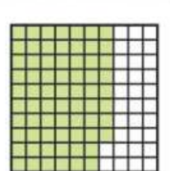
7. 

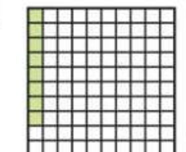


Practice: Copy and Solve Write the fraction or mixed number as a decimal.

8. $5\frac{9}{10}$
9. $\frac{1}{10}$
10. $\frac{7}{10}$
11. $8\frac{9}{10}$
12. $\frac{6}{10}$
13. $6\frac{3}{10}$
14. $\frac{5}{10}$
15. $9\frac{7}{10}$

Write the fraction or mixed number and the decimal shown by the model.

2. 

3. 



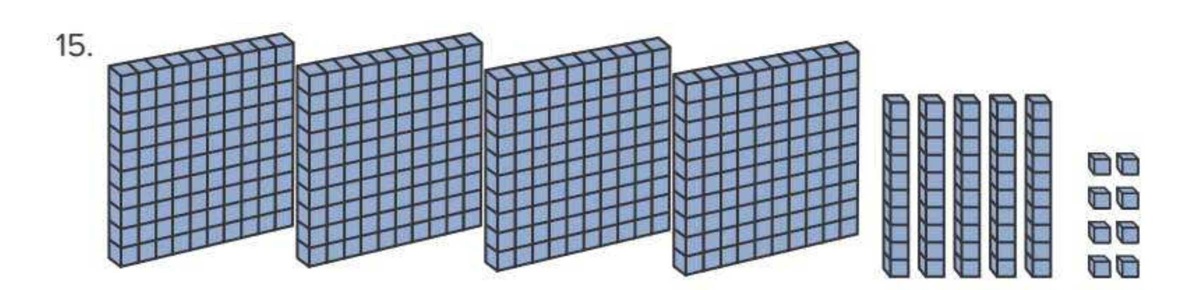


Practice: Copy and Solve Write the fraction or mixed number as a decimal.

8. $\frac{9}{100}$
9. $4\frac{55}{100}$
10. $\frac{10}{100}$
11. $9\frac{33}{100}$
12. $\frac{92}{100}$
13. $14\frac{16}{100}$



15.



Standard form: ____________________

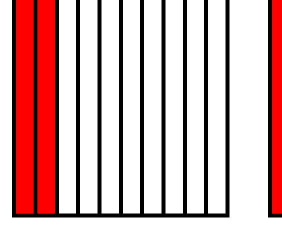
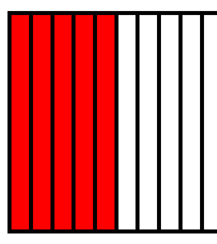
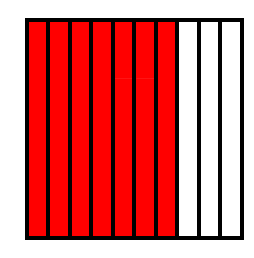
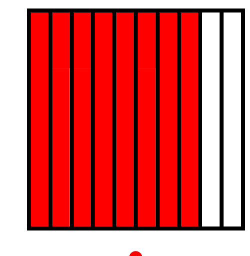
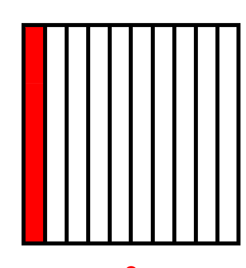
Word form: ____________________

Unit form: ____________________

Expanded form: ____________________

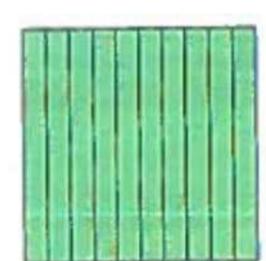
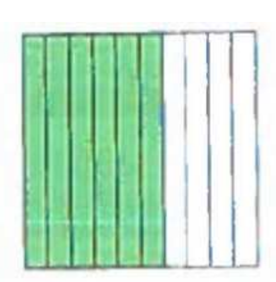


Join each decimal to its represented shape:

0.8	0.7	0.1	0.2	0.5

Concept (2): Decimals and Fractions


Mixed Number : $2\frac{6}{10}$

Decimal : 2.6

Word form : Two and six tenths.



Write the fraction for each of the following decimals.

a. 0.4 b. 0.13 c. 0.07 d. 2.93

Solution

a. $\frac{4}{10}$ b. $\frac{13}{100}$ c. $\frac{7}{100}$ d. $2\frac{93}{100}$



Write the fraction form for each of the following decimals:

a. 0.9 = ...	b. 2.7 = ...	c. 3.74 = ...
d. 7.05 = ...	e. 7.6 = ...	f. 3.4 = ...
g. 10.05 = ...	h. 2.02 = ...	i. 2.20 = ...
j. 5.97 = ...	k. 4.79 = ...	l. 6.28 = ...
m. 3.27 = ...	n. 5.17 = ...	o. 3.07 = ...





Decompose the units to represent each number as Tenths and then write the number as a fraction:

a. 3

Tenths : ________

In fraction form : ________

b. 1

Tenths : ________

In fraction form : ________

c. 4

Tenths : ________

In fraction form : ________

d. 1.3

Tenths : ________

In fraction form : ________

e. 1.5

Tenths : ________

In fraction form : ________

f. 2.3

Tenths : ________

In fraction form : ________

g. 10.8

Tenths : ________

In fraction form : ________

h. 24.6

Tenths : ________

In fraction form : ________



Decompose the units to represent each number as Hundredth and then write the number as a fraction:

a. 1

Hundredths : ________

In fraction form : ________

b. 3

Hundredths : ________

In fraction form : ________

c. 19

Hundredths : ________

In fraction form : ________

d. 1.5

Hundredths : ________

In fraction form : ________





Complete:

a. 3.7 = ________ tenths.

b. 5.2 = ________ hundredths.

c. 198 tenths = ________ (as a decimal)

d. 291 hundredths = ________ (as a fraction)

e. 3.74 = ________ hundredths.

f. 89.5 = ________ tenths.

g. 39 tenths = ________ (as a decimal)

h. 2.14 = ________ (hundredths)



Put (✓) to the correct statement and (×) to the incorrect one:

a. $7.02 = 7\frac{2}{10}$ [ ]

b. $14.80 = 14\frac{8}{10}$ [ ]

c. 32 tenths = 3.2 [ ]

d. 175 hundredths = 17.5 [ ]

e. 8.1 = 81 tenths [ ]

f. 30 hundredths = $\frac{30}{10}$ [ ]



Circle the equations that show the equivalency:

1. $\frac{1}{2} = \frac{3}{6}$
2. $\frac{2}{3} = \frac{2}{6}$
3. $\frac{8}{10} = \frac{4}{10}$
4. $\frac{8}{12} = \frac{4}{6}$
5. $\frac{2}{3} = \frac{6}{9}$
6. $\frac{4}{8} = \frac{0}{4}$
7. $\frac{1}{4} = \frac{5}{8}$
8. $\frac{2}{10} = \frac{4}{20}$
9. $\frac{5}{10} = \frac{1}{2}$



Are the two decimals equivalent ? Write equivalent or not equivalent.

a. 0.7 and 0.70 ________

b. 0.04 and 0.4 ________

c. 0.9 and 0.09 ________

d. 0.28 and 0.82 ________

e. 0.17 and 0.07 ________

f. 0.1 and 0.10 ________





Write an equivalent decimal for each. You may use decimal models.

a. 0.8 .... b. 0.7 .... c. 0.90 .... d. 0.2 ....

e. 0.5 .... f. 0.10 .... g. 0.40 .... h. 0.6 ....



Are the two fractions equivalent ? Write equivalent or not equivalent.

a. $\frac{3}{10}$ and $\frac{30}{100}$ ....

b. $\frac{5}{100}$ and $\frac{50}{10}$ ....

c. $\frac{80}{100}$ and $\frac{8}{10}$ ....

d. $\frac{4}{100}$ and $\frac{4}{10}$ ....

e. $\frac{60}{100}$ and $\frac{6}{10}$ ....

f. $\frac{20}{100}$ and $\frac{2}{100}$ ....



Write an equivalent fraction for each.

a. $\frac{7}{10}$ .... b. $\frac{80}{100}$ .... c. $\frac{9}{10}$ .... d. $\frac{4}{10}$ ....

e. $\frac{10}{100}$ .... f. $\frac{20}{100}$ .... g. $\frac{3}{10}$ .... h. $\frac{50}{100}$ ....



Fill the missing denominator or numerator. Circle the fraction that is more than 1 whole.

a. $\frac{5}{10} = \frac{50}{\square}$

b. $\frac{20}{100} = \frac{\square}{10}$

c. $\frac{4}{10} = \frac{40}{\square}$

d. $\frac{200}{100} = \frac{\square}{10}$

e. $\frac{70}{\square} = \frac{7}{10}$

f. $\frac{80}{10} = \frac{\square}{100}$

g. $\frac{3}{10} = \frac{\square}{100}$

h. $\frac{60}{100} = \frac{\square}{10}$

i. $\frac{7}{10} = \frac{\square}{100}$

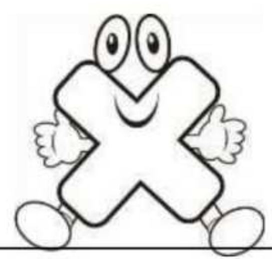
j. $\frac{900}{100} = \frac{\square}{10}$

k. $\frac{8}{\square} = \frac{80}{100}$

l. $\frac{10}{100} = \frac{\square}{10}$



Homework



MULTIPLICATION

$4 \times 3 =$ ☐	$4 \times 5 =$ ☐	$4 \times 4 =$ ☐
$4 \times 6 =$ ☐	$4 \times 0 =$ ☐	$4 \times 7 =$ ☐
$4 \times 2 =$ ☐	$4 \times 1 =$ ☐	$4 \times 9 =$ ☐

$8 \times 7 =$ ☐	$8 \times 3 =$ ☐	$8 \times 4 =$ ☐
$8 \times 8 =$ ☐	$8 \times 2 =$ ☐	$8 \times 1 =$ ☐
$8 \times 5 =$ ☐	$8 \times 6 =$ ☐	$8 \times 0 =$ ☐



Decompose the units to represent each number as Tenths and then write the number as a fraction:

1. 1

   Tenth ____________

   In fraction form ____________

2. 3

   Tenths ____________

   In fraction form ____________

3. 1.5

   Tenths ____________

   In fraction form ____________

4. 2.3

   Tenths ____________

   In fraction form ____________



Decompose the units to represent each number as Hundredth and then write the number as a fraction:

6. 1

Hundredths ______________

In fraction form ______________

7. 3

Hundredths ______________

In fraction form ______________

8. 1.5

Hundredths ______________

In fraction form ______________

9. 2.3

Hundredths ______________

In fraction form ______________



Record an equivalent fraction and decimal for each problem:

1. $\frac{1}{10}$

Fraction: ______________

Decimal: ______________

2. $\frac{70}{100}$

Fraction: ______________

Decimal: ______________

3. $\frac{6}{10}$

Fraction: ______________

Decimal: ______________

4. 0.4

Fraction: ______________

Decimal: ______________

5. 0.30

Fraction: ______________

Decimal: ______________

6. 0.9

Fraction: ______________

Decimal: ______________



Concept (3): Working With Decimals

Convert Fractions to Decimals and Decimals to Fractions:



1. $\frac{2}{10}$ = ____________________

2. 0.5 = ____________________

3. $\frac{45}{100}$ = ____________________

4. 0.45 = ____________________

5. $\frac{6}{10}$ = ____________________

6. $\frac{99}{100}$ = ____________________

7. 0.03 = ____________________

8. $\frac{78}{100}$ = ____________________

9. 2.3 = ____________________

10. 0.90 = ____________________

11. $\frac{3}{10}$ = ____________________

12. 0.6 = ____________________

13. 0.1 = ____________________

14. 0.11 = ____________________

15. $\frac{90}{100}$ = ____________________

16. $\frac{33}{100}$ = ____________________

17. 1.7 = ____________________

18. $\frac{47}{100}$ = ____________________

19. 0.40 = ____________________

20. $\frac{1}{100}$ = ____________________



Using the place value chart, Put (<), (>) or (=):

1. 0.34 ________ 0.4

Ones	Decimal	Tenths	Hundredths
0	.	3	4
0	.	4	

2. 0.45 ________ 0.04

Ones	Decimal	Tenths	Hundredths
	.		
	.		

3. 0.23 ________ 0.3

Ones	Decimal	Tenths	Hundredths
	.		
	.		

4. 0.54 ________ 0.45

Ones	Decimal	Tenths	Hundredths
	.		
	.		

5. 0.62 ________ 0.26

Ones	Decimal	Tenths	Hundredths
	.		
	.		





Compare Using (<), (>) or (=):

a. 0.2 ◯ 0.13 | b. 0.31 ◯ 0.13 | c. 0.34 ◯ 0.04

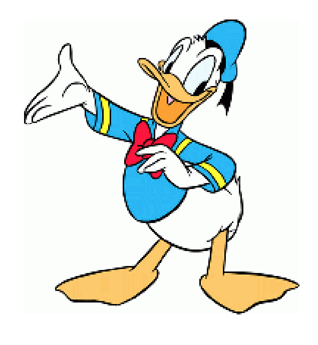
d. 0.30 ◯ 0.3 | e. 0.35 ◯ 0.3 | f. 0.7 ◯ 0.68

g. 0.18 ◯ 0.4 | h. 0.60 ◯ 0.8 | i. 0.07 ◯ 0.7



Compare Using (<), (>) or (=):

1. $\frac{24}{100}$ ______ 0.6
2. $\frac{6}{10}$ ______ .34
3. 1.04 ______ 98 Tenths
4. $\frac{134}{100}$ ______ 1.03
5. $\frac{9}{10}$ ______ 0.89
6. 7 Tenths ______ 0.7
7. 2.07 ______ 2 Ones and 7 Tenths
8. $\frac{50}{100}$ ______ 5.00



Choose the correct answer from A, B, C or D:

1. 7.2 ◯ 7.15
   A. > B. < C. =

2. 2.4 ◯ $2\frac{42}{100}$
   A. > B. < C. =

3. $\frac{125}{100}$ ◯ 1.3
   A. > B. < C. =

4. Which of the following is greater than 1.64 ?
   A. 1.7 B. 1.5
   C. 1.47 D. 1.08

5. Which of the following is greater than 0.25 ?
   A. 0.22 B. $\frac{13}{100}$
   C. 0.4 D. 15 hundredths

6. Which of the following is smaller than $\frac{36}{100}$?
   A. $\frac{4}{10}$ B. 0.7
   C. 0.53 D. 0.23



Make Equivalent Fractions:

1. $\frac{30}{100} = \frac{\square}{10}$

2. $\frac{4}{10} = \frac{40}{\square}$

3. $\frac{2}{10} = \frac{\square}{100}$

4. $\frac{90}{100} = \frac{\square}{10}$

5. $\frac{50}{100} = \frac{\square}{10}$



6. $1\frac{70}{100} = 1\frac{7}{\square}$

7. $\frac{100}{100} = \frac{\square}{10}$

8. $\frac{40}{10} = \frac{\square}{100}$

9. $\frac{600}{100} = \frac{60}{\square}$

10. $2\frac{8}{10} = 2\frac{\square}{100}$

Complete to find the result:

a. $\frac{6}{10} + \frac{23}{100} = \frac{\quad}{100} + \frac{23}{100} = \frac{\quad}{100}$

b. $\frac{7}{10} + \frac{60}{100} = \frac{7}{10} + \frac{\quad}{10} = \frac{\quad}{10}$

c. $\frac{3}{10} + \frac{8}{100} = \frac{\quad}{100} + \frac{8}{100} = \frac{\quad}{\quad}$

d. $\frac{23}{100} + \frac{9}{10} = \frac{23}{100} + \frac{\quad}{100} = \frac{\quad}{\quad}$

e. $\frac{32}{100} + \frac{5}{10} = \frac{32}{100} + \frac{\quad}{100} = \frac{\quad}{\quad}$

f. $\frac{6}{10} + \frac{82}{100} = \frac{\quad}{100} + \frac{82}{100} = \frac{\quad}{\quad}$





Homework

Using the place value chart, Put (<), (>) or (=):

6. 0.80 ________ 0.09

Ones	Decimal	Tenths	Hundredths
	.		
	.		

7. 0.73 ________ 0.69

Ones	Decimal	Tenths	Hundredths
	.		
	.		

8. 0.10  0.1

Ones	Decimal	Tenths	Hundredths
	.		
	.		

9. 0.49 ________ 0.04

Ones	Decimal	Tenths	Hundredths
	.		
	.		



Compare Using (<), (>) or (=):

a. 0.52 ◯ 0.54
d. 3.7 ◯ 3.70

b. 0.9 ◯ 0.82
e. 3.4 ◯ 4.56

c. 1.52 ◯ 1.45
f. 2.05 ◯ 2.15



Compare Using (<), (>) or (=):

a. $\frac{24}{100}$ ◯ 0.6

c. $\frac{6}{10}$ ◯ 0.34

e. $\frac{200}{100}$ ◯ 0.20

g. 3 hundredths ◯ 2 tenths

i. $\frac{8}{10}$ ◯ 0.79

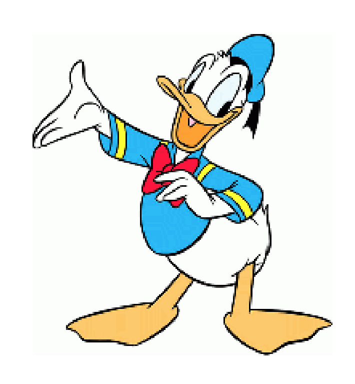
k. $\frac{50}{100}$ ◯ 5.00

m. 2.07 ◯ 2 Ones , 7 Tenths

o. 3 hundredths ◯ $\frac{30}{100}$

q. 8.21 ◯ $8\frac{13}{100}$

s. $7\frac{2}{100}$ ◯ 3.08



Choose the correct answer from A, B, C or D:

7. 3.74 ◯ $\frac{374}{100}$

   A. $>$ B. $<$ C. $=$

8. 17 hundredths ◯ 17 tenths

   A. $>$ B. $<$ C. $=$

9. 12. 6 $<$ 12.67

   A. 6 B. 7
   C. 8 D. 9

10. 3.07 ◯ 3 Ones , 7 Tenths

    A. $>$ B. $<$ C. $=$

11. Which of the following is **NOT** true ?

    A. $7.32 < 7.4$ B. $3.78 > 3.54$
    C. $0.01 < 0.1$ D. $\frac{13}{10} > 3.1$

12. Which of the following is true ?

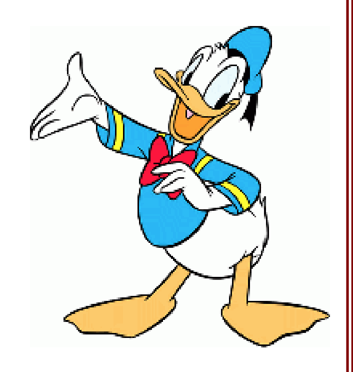
    A. $0.53 > 0.55$ B. $0.03 > 0.3$
    C. $1.1 > 0.99$ D. $4.8 < 4.75$





Make Equivalent Fractions:

a. $\frac{6}{10} = \frac{__}{100}$



c. $\frac{4}{10} = \frac{40}{__}$

e. $\frac{70}{100} = \frac{7}{__}$

g. $\frac{80}{100} = \frac{8}{__}$

Find the result:

a. $\frac{7}{10} + \frac{25}{100} =$ ____________

c. $\frac{32}{100} + \frac{31}{100} =$ ____________

e. $\frac{3}{10} + \frac{70}{100} =$ ____________

g. $\frac{6}{10} + \frac{40}{100} =$ ____________







Unit (10) Assessment

[1] Choose the correct answer:

a. The value of the digit 3 in the number 15.23 is ______

A. 0.03 B. 0.30 C. 3 D. 30

b. 0.07 = ______ "as a fraction."

A. $\frac{7}{10}$ B. $\frac{7}{100}$ C. $\frac{70}{10}$ D. $\frac{70}{100}$

c. 1.52 ◯ 1.6

A. $>$ B. $<$ C. $=$

d. 7 + 0.1 + 0.05 = ______

A. 71.5 B. 7.15 C. 7.51 D. 1.75

e. Which fraction is equivalent to 0.9 ?

A. $\frac{90}{10}$ B. $\frac{9}{100}$ C. $\frac{9}{10}$ D. 90

f. $\frac{35}{100} + \frac{2}{10} <$ ______

A. $\frac{7}{10}$ B. $\frac{55}{100}$ C. $\frac{3}{10}$ D. $\frac{49}{100}$

g. The digit in the tenths place in the number 56.79 is ______

A. 5 B. 6 C. 7 D. 9



[2] Complete:

a. $\frac{5}{10} + \frac{25}{100} =$ ______

b. 3.16 in word form is ______

c. 5.7 = ______ tenths

d. The place value of the digit 3 in the number 54.32 is ______

e. Six and eight hundredths = ______ in standard form.

f. 21.7 = ______ hundredths

g. $1\frac{6}{10} + \frac{24}{100} =$ ______

h. 5 tens and 3 tenths = ______



[3] Choose the correct answer:

a. $0.07 + 0.2 =$ ....

A. 72 tenths　　B. 27 tenths　　C. 72 hundredths　　D. 27 hundredths

b. $2\frac{1}{10} + 3\frac{1}{100} =$ ....

A. 5.2　　B. 5.12　　C. 5.11　　D. 5.22

c. $7.2 >$ ....

A. 7.3　　B. 7.16　　C. 7.20　　D. 7.29

d. $\frac{2}{10} + \frac{27}{100} =$ ....

A. $\frac{29}{100}$　　B. $\frac{209}{100}$　　C. $\frac{47}{100}$　　D. $\frac{49}{100}$

e. 0.34 ◯ 0.4

A. $>$　　B. $<$　　C. $=$

f. $\frac{810}{100} = \frac{\ldots}{10}$

A. 8100　　B. 810　　C. 81　　D. 8.1

g. $1\frac{40}{100} =$ ....

A. 140　　B. 14　　C. 1.4　　D. 1.04



[4] Answer the following:

1. Mohamed was training for the race. On Sunday, he ran for $\frac{7}{10}$ km. On Monday, he ran for $\frac{36}{100}$ km. What distance did he run in all?

....

2. Mostafa and his brother have two sandwiches of the same size. Mostafa ate 0.7 of his sandwich. His brother ate $\frac{25}{100}$ of his sandwiches. Who ate more?

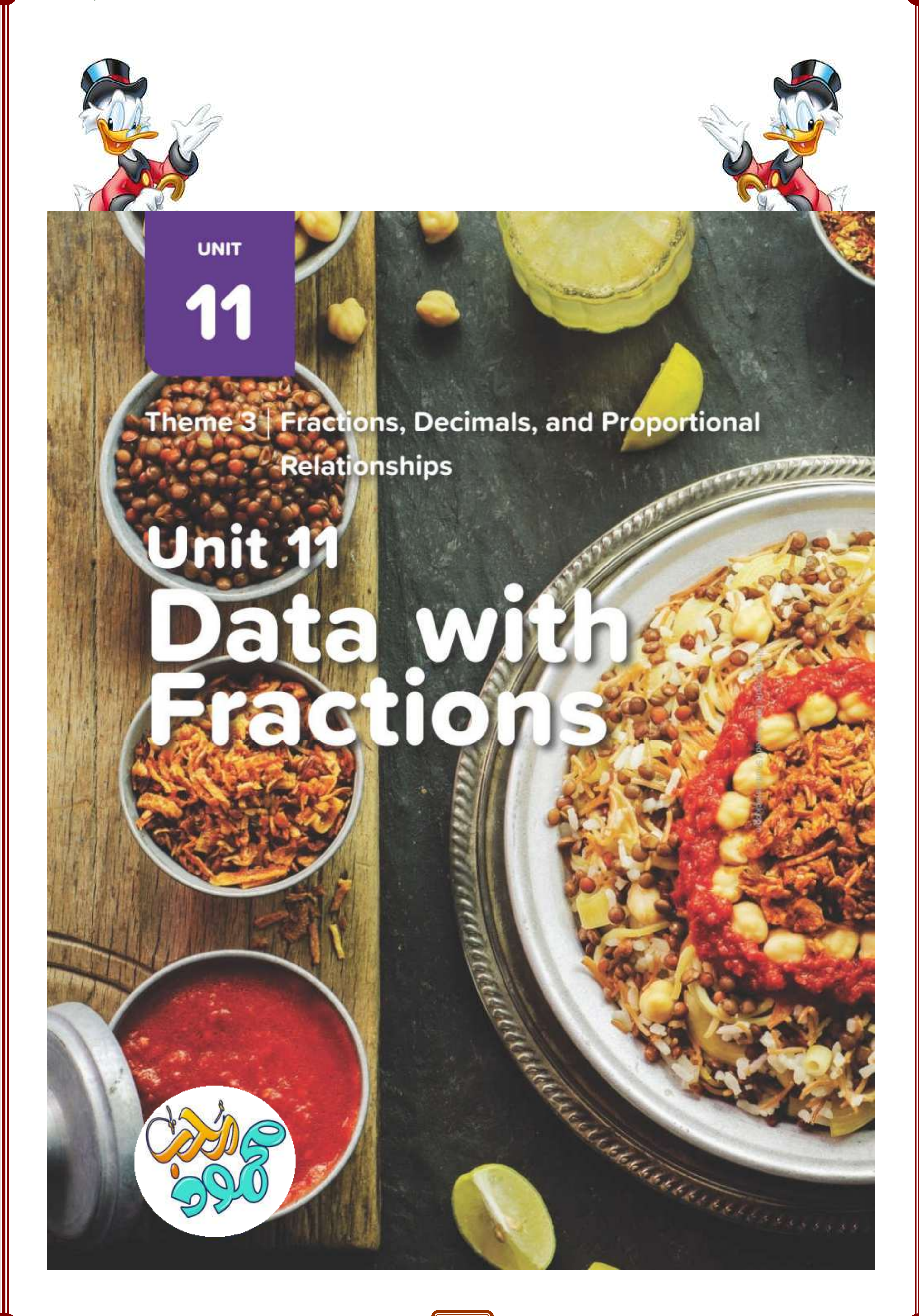
....

3. Amira bought 1.5 kilograms of tomatoes. Nada bought 1.6 kilograms of tomatoes. Who bought less?

....

4. Maha wrote 7.03 in word form as seven and 3 tenths
Is Maha right or wrong? If she is wrong correct her mistake.

....


UNIT
11
Theme 3 | Fractions, Decimals, and Proportional Relationships
Unit 11
Data with Fractions

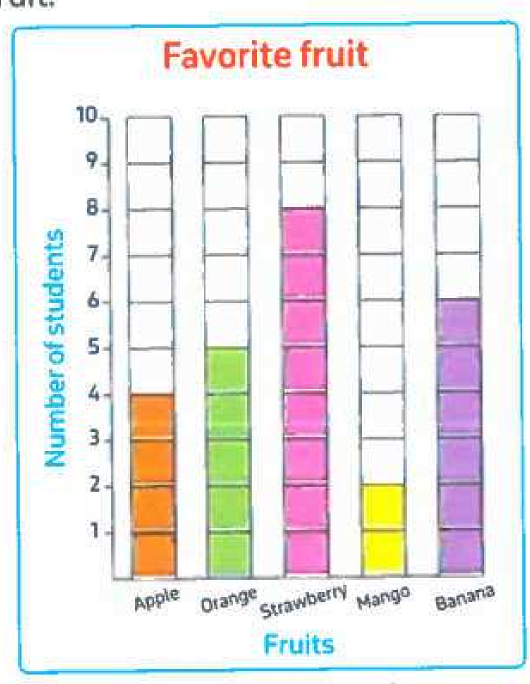
Concept (1)
Creating and Analyzing Graphs

Remember

- You have learned before that data can be represented by more than one way.
- These data about student's favorite fruit. Sandra represented these data by a bar graph.

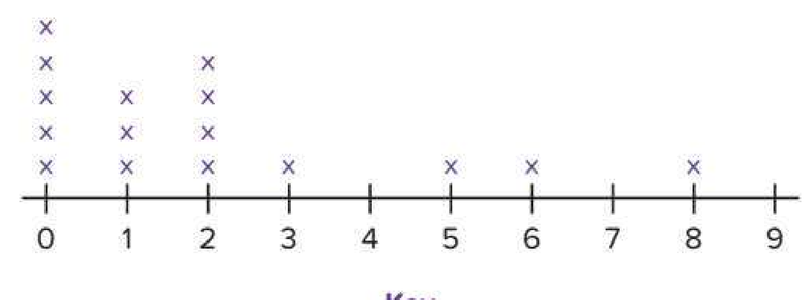
Favorite fruit

Fruit	Number
Apple	4
Orange	5
Strawberry	8
Mango	2
Banana	6



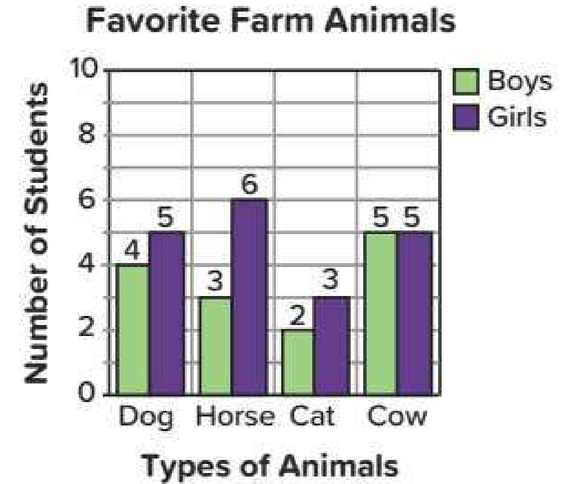
A bar graph is used to compare data.

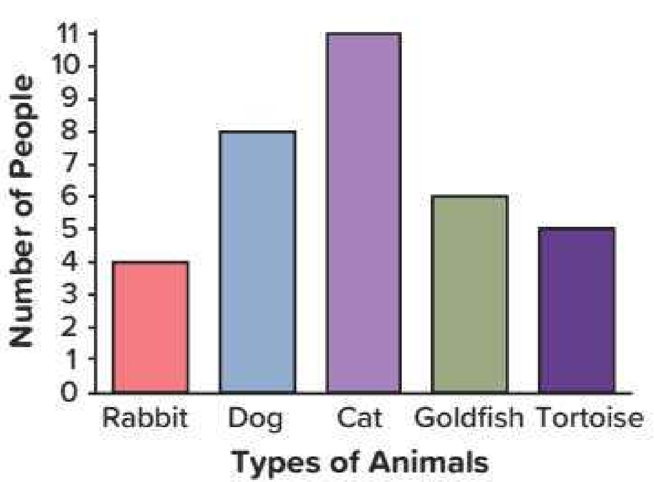












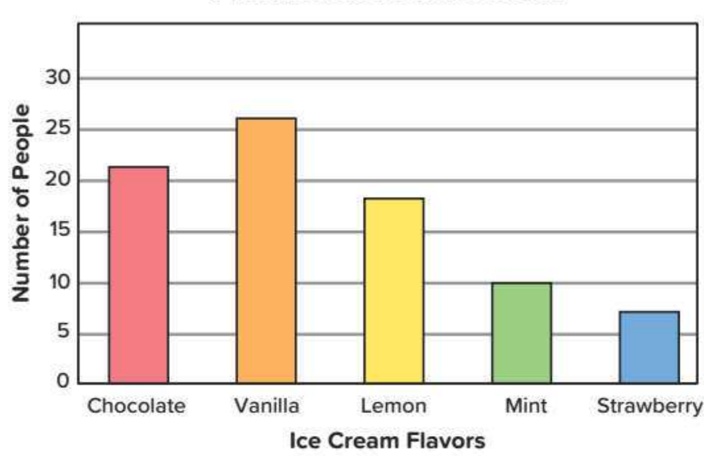




Table 1: Minimum and Maximum Monthly Temperatures in Cairo

Month	Minimum	Maximum
January	9	19
February	10	20
March	12	24
April	15	28

1. Could this data be represented in a double bar graph?

____





Table 2: Favorite Sports

Sport	Number of Students
Soccer	48
Basketball	24
Swimming	32
Gymnastics	12

2. Could this data be represented in a double bar graph?

____



Table 3: Favorite Foods

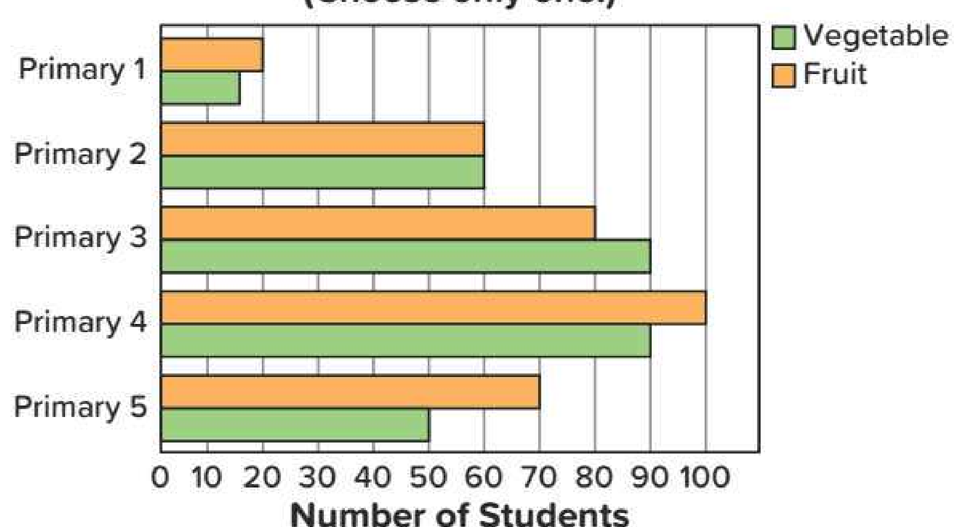
Food	Boys	Girls
Baklava	25	18
Feteer Meshaltet	17	12
Ful Medames	20	26
Tamiya	11	16

3. Could this data be represented in a double bar graph?

____







4. Which grade has the same number of students who like fruit and vegetables?

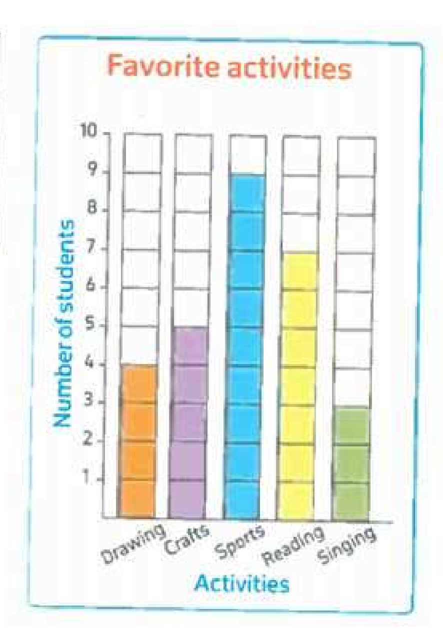
5. Which grade likes vegetables more than fruit?



The following graph shows student's votes for their favorite activities.

Complete the following table. Then answer the questions.

	Favorite activities				
Activity	Drawing	Crafts	Sports	Reading	Singing
Number					



a. Which activity do most students prefer?

b. Which activity was chosen by the fewest students?

c. How many students chose reading?

d. How many more students chose sports than crafts?

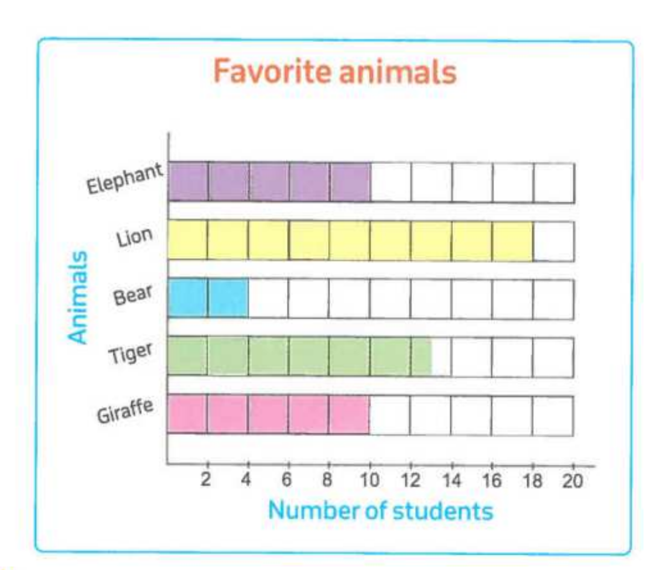
e. Which two activities their sum equals the number of students chose sports?





The following graph shows students' votes for their favorite animal.

Answer the following questions.



a. Which animal is liked the most ?

b. Which animal is liked the least ?

c. How many students liked tiger ?

d. Which two animals were liked by the same number of students ?

e. How many more students liked tiger than bear ?



The following double bar graph shows the sum of money in pounds which Hany and Enas saved in 5 consecutive months. Observe the graph , then answer the questions.



a. What is the highest amount did Hany save ? Which month ?

b. What is the highest amount did Enas save ? Which month ?

c. What is the total saved amount in February ?

d. What is the total amount did Hany save in all ?

e. What is the total amount did Enas save in all ?

f. Which month did Hany and Enas save the same amount ?

g. Who saved the most ? Who saved the least ?

h. What is the difference between their amounts in April ?



A meteorologist compares rain fall in 2000 and 2020 in different countries in Sub-Saharan Africa.

Circle the best type of graph that represents this data.

Line plot | bar graph | pictograph | double bar graph



The data showing the favorite fast food of boys and girls of grade four.

Fast Food	Pizza	Noodles	Pasta	Burgers
Boys	25	40	15	25
Girls	30	35	30	45

Circle the best type of graph that represents this data.

Line plot | bar graph | pictograph | double bar graph



Use the following data to make a line plot, then answer the questions.

a. 11 kg , $12\frac{1}{4}$ kg , $11\frac{3}{4}$ kg , $11\frac{1}{2}$ kg , 12 kg , $11\frac{1}{2}$ kg , $11\frac{1}{4}$ kg , $11\frac{1}{4}$ kg , $11\frac{1}{2}$ kg , 12 kg



1. Give the line plot a title.
2. What is the most common record ?
3. What is the least common record ?



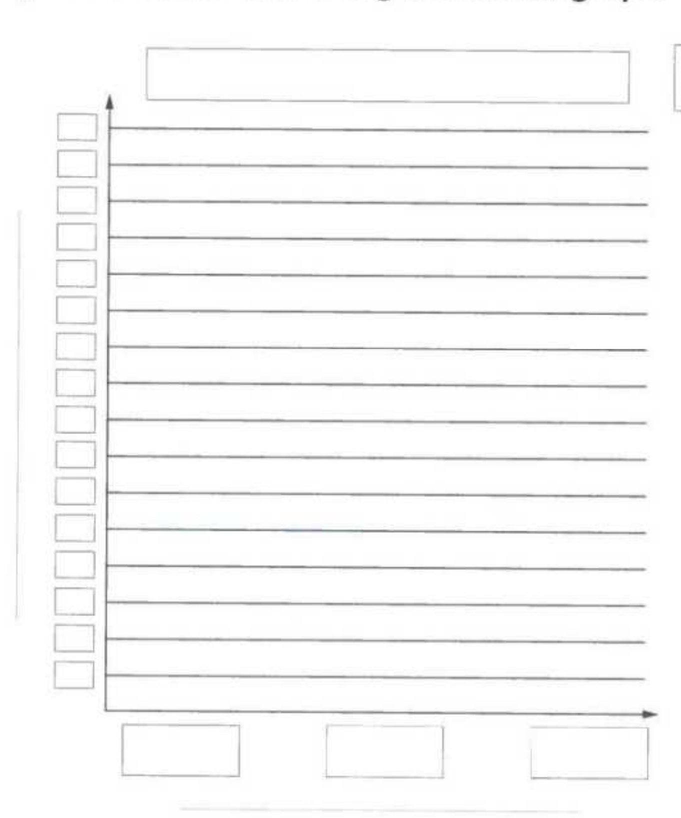
Use the following data to make a line plot.

$6\frac{1}{2}$	7	5	7	7	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{2}$
$5\frac{1}{2}$	6	$6\frac{1}{2}$	$6\frac{1}{2}$	$5\frac{1}{2}$	7	5	6	$6\frac{1}{2}$	$5\frac{1}{2}$



The following data shows the marks of three students in Mathematics and Science tests and full mark is 10.

Represent these data using double bar graph.



Name / Subject	Andy	Reem	Nour
Mathematics	7	6	$5\frac{1}{2}$
Science	$7\frac{1}{2}$	$6\frac{1}{2}$	8





Homework

3 m , $3\frac{1}{3}$ m , 4 m , $4\frac{1}{3}$ m , $3\frac{2}{3}$ m , $3\frac{1}{3}$ m , $4\frac{2}{3}$ m , $4\frac{1}{3}$ m , 4 m , 3 m , $3\frac{1}{3}$ m , $4\frac{2}{3}$ m.



1. Give the line plot a title.
2. What is the most common record ?
3. What is the least common record ?



The following data shows the walking distance in a week by two friends Bassem and Amal. The data are given in kilometers. Represent these data by a double bar graph showing the week's data. Then use the graph to answer the following questions.

Days / Name	Sunday	Monday	Tuesday	Wednesday	Thursday
Bassem	$2\frac{1}{4}$	$1\frac{1}{2}$	$3\frac{3}{4}$	3	$3\frac{1}{2}$
Amal	$1\frac{3}{4}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{4}$	4

a. Which day Bassem walked the longest distance ?

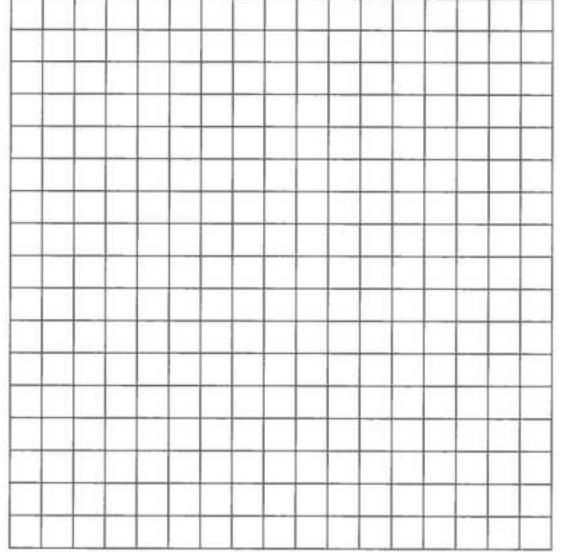
b. Which day Amal walked the shortest distance ?

c. On which day did Bassem and Amal's total distance equals 4 kilometers ?

d. How many total kilometers did Amal walk in all ?

e. How many total kilometers did Bassem walk in all ?

f. On which day did Bassem walk twice as far as he did in Monday ?





Unit (11) Assessment

[1] Choose the correct answer:

a. Which of the following can be represented by a line plot ?

A. Our favorite sports. B. Our favorite colors.
C. Our weights. D. Our favorite food.

b. Which of the following can be represented by a double bar graph ?

A. Favorite animal. B. Marks of friends in Math.
C. Marks of friends in Math and Arabic. D. Our heights.

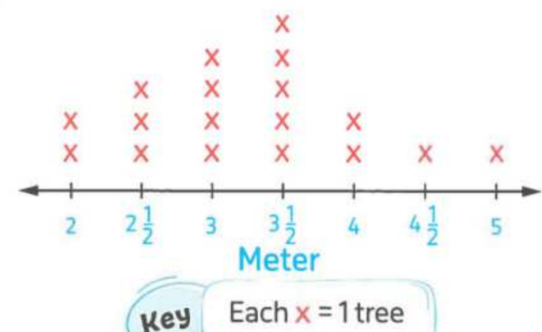
c. To represent the number of walking hours for Ahmed and Hassan in one week you can use ______

A. line plot. B. pictograph. C. double bar graph. D. bar graph.

d. Maged collected some data about the favorite pet of his friends. Which kind of representing data is the best ?

A. Line plot. B. Double bar graph. C. Bar graph.

e. The opposite line plot represents the lengths of some trees by meter. Which length represents the greatest number of tree ?



A. $2\frac{1}{2}$ B. 3
C. $3\frac{1}{2}$ D. 4

f. Which type of graph is suitable to represent these data ?

Name	Ahmed	Nora	Sally	Ola
Age	13	17	15	10

A. Double bar graph. B. Line plot.
C. Bar graph.

g. Which type of graph is suitable for these data ?

Subject	Math	English	Arabic	Science	Art
Hany	20	19	15	18	17
Mona	17	20	19	20	15

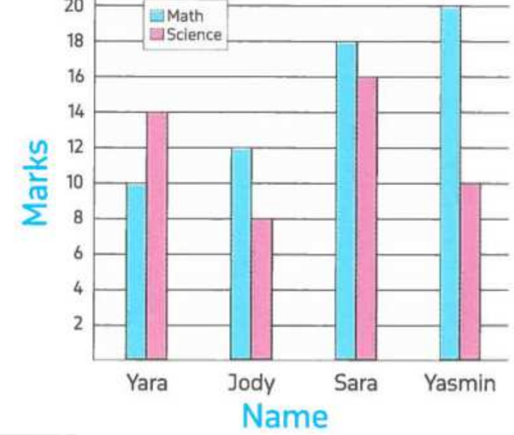
A. Double bar graph. B. Line plot. C. Bar graph.



[2] Complete:

• The opposite graph shows the marks of four students in Math and Science tests.

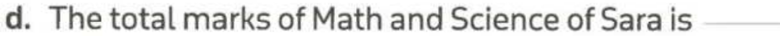
Complete from (a) to (d).



a. The student who got the highest mark in Math is ....

b. The difference between the Math mark and Science mark of Yasmin is ....

c. The student who got the lowest mark in Science is ....



d. The total marks of Math and Science of Sara is ....

• The opposite table represent the favorite color of some students.

Complete from (e) to (h).

e. The most favorite color is ....

f. The total number of students is ....

g. The number of students who liked red and yellow is ....

h. The difference between the number of students who liked green and white is ....

The favorite color	
Color	**Number**
Red	12
Yellow	18
Black	4
White	11
Green	9



[3] Choose the correct answer:

a. Which type of graph is suitable to represent these data ?

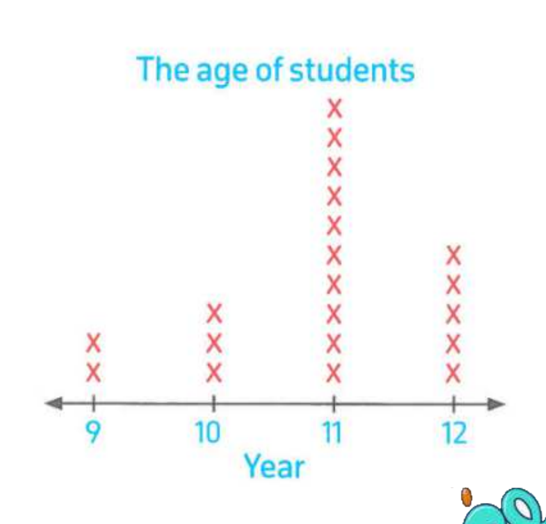
Number of hours	0	1	2	3	4	5
Number of students	2	4	10	11	3	1

A. Double bar graph. B. Line plot. C. Pictograph.

b. In the opposite line plot, if it represents the ages of 40 students in grade 4, then each X stands for .... student[s].

A. one B. two

C. three D. four



c. Which type of graph is suitable to represent these data ?

1	3	2	5	1	4
3	2	4	1	3	1
2	1	3	4	1	5

A. Double bar graph.

B. Line plot.

C. Bar graph.

d. From the opposite table the value of X is ————

Books Readers	
Name	**Number**
Amgad	4
Ola	5
Nora	10
Alaa	X
Noha	2
Total	**30**

A. 6 B. 7

C. 8 D. 9

e. The football coach scored the following numbers of goals in the last twenty matches.

3 , 0 , 1 , 5 , 4 , 3 , 2 , 6 , 4 , 2 , 3 , 3 , 0 , 7 , 1 , 1 , 2 , 3 , 4 , 3

Which number had the highest frequency ?

A. 3 B. 5 C. 6 D. 7

f. Which type of graph is suitable to represent these data ?

Test Evaluation	
Evaluation	**Total**
Excellent	2
V.good	8
Good	6
Pass	4

A. Double bar graph.

B. Line plot.

C. Bar graph.

g. From the opposite table, the value of X is ————

Subject Marks	
Subject	**Number**
Math	X
English	13
Arabic	15
Science	11
Music	6
Total	**50**

A. 6 B. 4

C. 5 D. 6





[4] Answer the following:

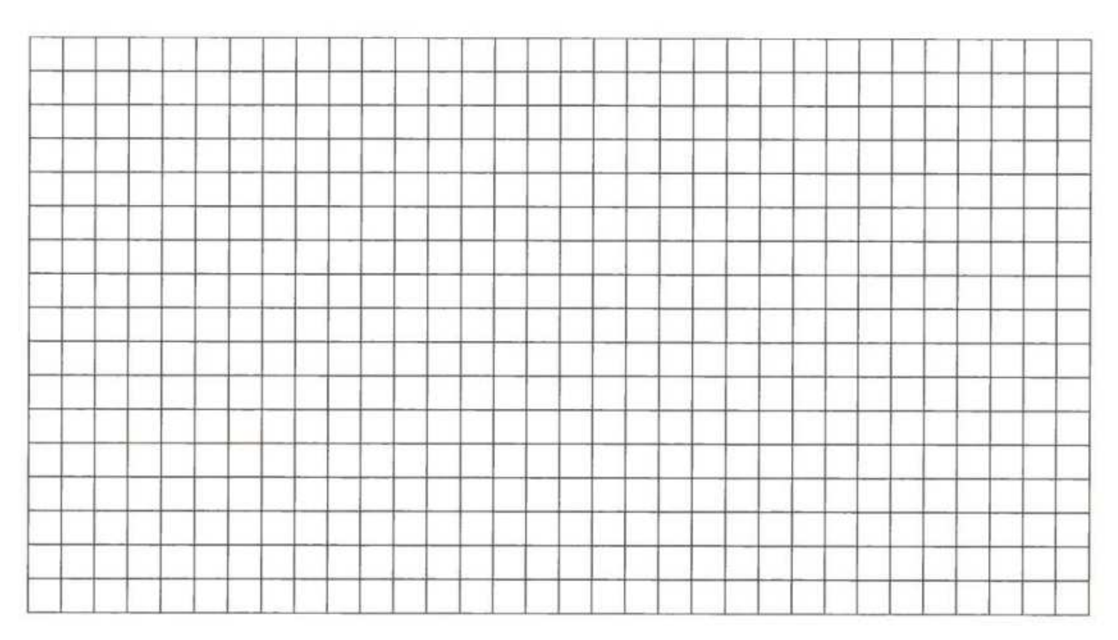
a. Use the following data to make a line plot.

$5\frac{1}{2}$	$3\frac{1}{2}$	$6\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$	$4\frac{1}{2}$	$6\frac{1}{2}$	$5\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$
4	3	5	$5\frac{1}{2}$	$3\frac{1}{2}$	4	6	6	4	5

b. The following data shows the number of study hours in a week by Eslam and Mina.

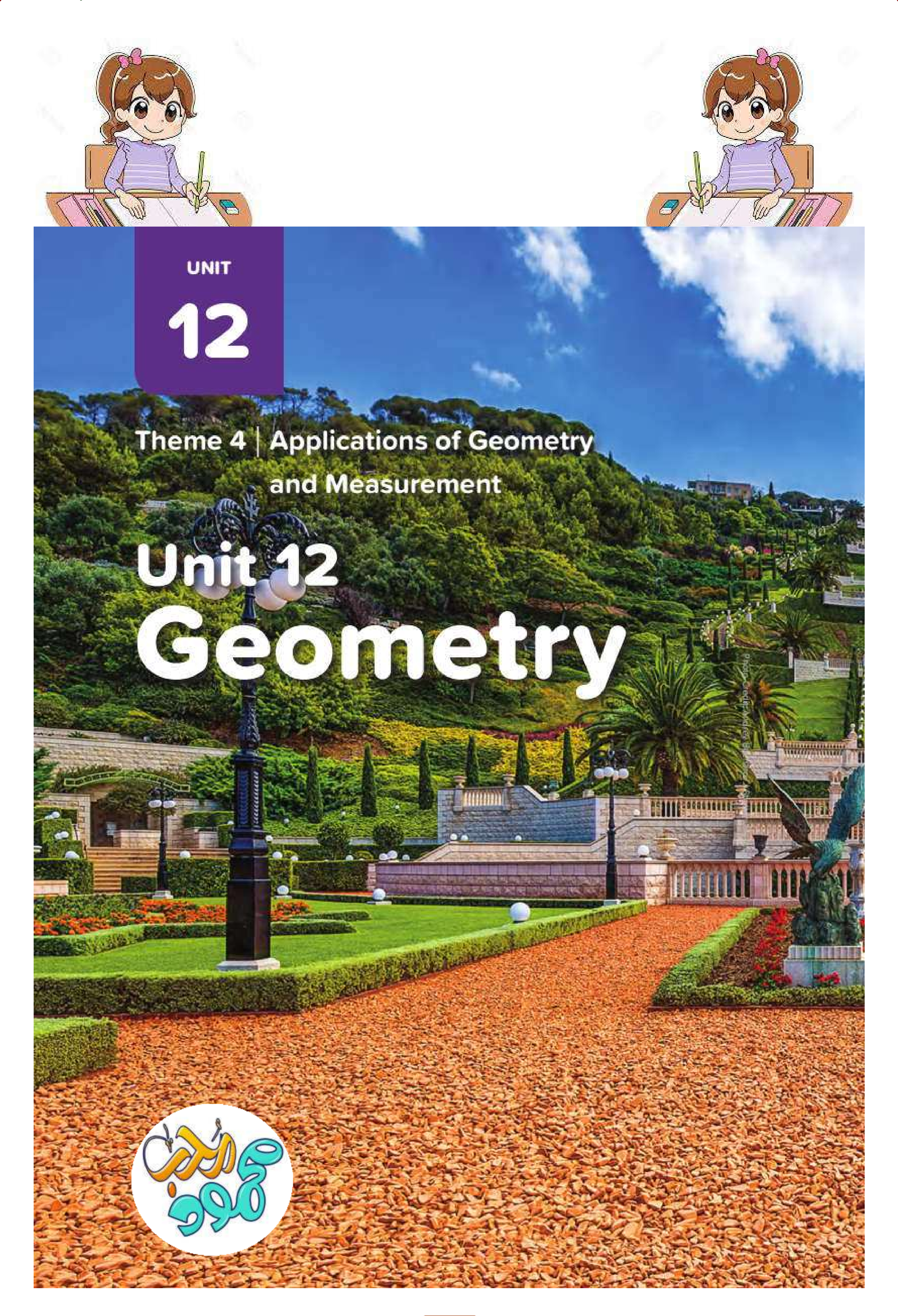
Represent these data by a double bar graph.

Name \ Days	Sat.	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.
Eslam	3	4	$5\frac{1}{2}$	5	3	5	$3\frac{1}{2}$
Mina	$3\frac{1}{2}$	3	5	6	$4\frac{1}{2}$	$6\frac{1}{2}$	2








UNIT
12
Theme 4 | Applications of Geometry and Measurement
Unit 12
Geometry

Concept (1)
Points, Lines, Rays, and Plane Figures

Polygons

The Polygon	Name	Number of sides	Number of vertices
	Triangle		
	Quadrilateral		
	Pentagon		
	Hexagon		
	Heptagon		
	Octagon		
	Nonagon		
	Decagon		

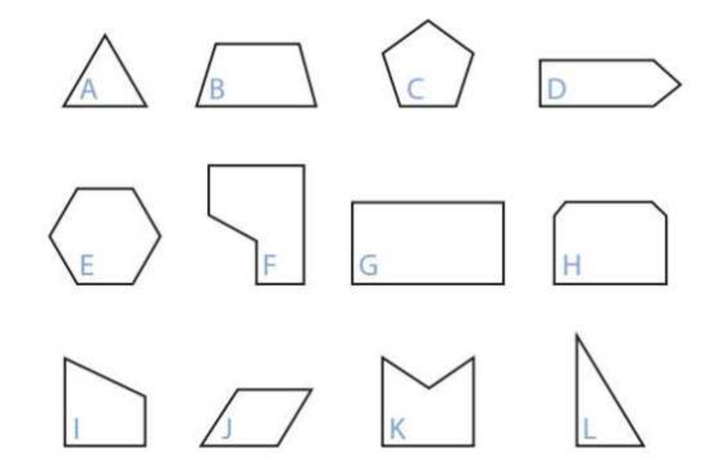
Note: For any polygon:

Number of sides = Number of vertices



Lesson (1): Two Dimensional Shapes

Similar Shapes Look at the shapes. Choose two shapes that have something in common. Write the letters of the shapes you chose, and then write 1–2 sentences describing what the shapes have in common.



1. Shape ______________ and Shape ______________ are similar because

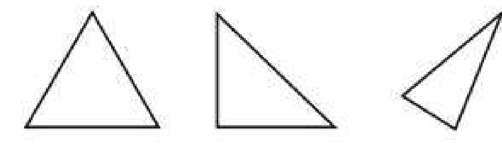
2. Shape ______________ and Shape ______________ are similar because

3. Shape ______________ and Shape ______________ are similar because

4. Shape ______________ and Shape ______________ are similar because



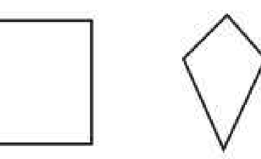
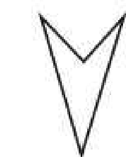
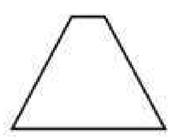
Identifying and Drawing Shapes Record the name of the shape, the number of sides, and the number of vertices.

1. 

Name ______________________

Number of Sides ______________________

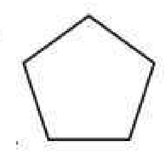
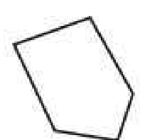
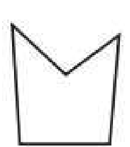
Number of Vertices ______________________

2.   

Name ______________________

Number of Sides ______________________

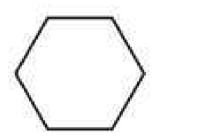
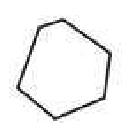
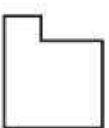
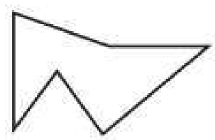
Number of Vertices ______________________

3.   

Name ______________________

Number of Sides ______________________

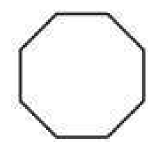
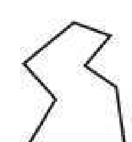
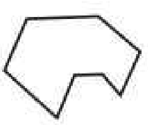
Number of Vertices ______________________

4.    

Name ____________________

Number of Sides ____________________

Number of Vertices ____________________

5.   

Name ____________________

Number of Sides ____________________

Number of Vertices ____________________

6. Draw a polygon with 3 sides and 3 vertices.

7. Draw a polygon with 4 sides and 4 vertices.

8. Draw a polygon with 5 sides and 5 vertices.

9. Draw a polygon with 6 sides and 6 vertices.





Lesson (2): Points, Lines, Line Segments, and Rays

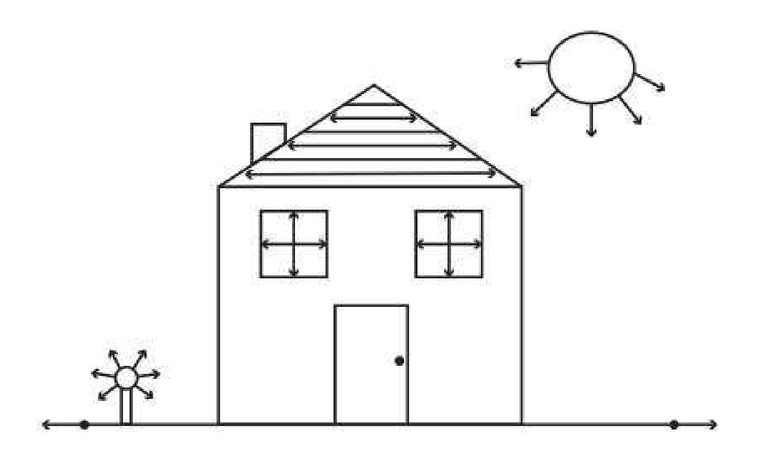
B, C	line YZ	$\overrightarrow{YZ}$
C, B	line segment BC	$\overrightarrow{BC}$
Z, Y	line BC	$\overleftrightarrow{YZ}$
Y, Z	ray BC	$\overline{BC}$
Y, Z	line segment YZ	$\overleftrightarrow{BC}$
C, B	ray YZ	$\overline{YZ}$





House of Rays, Line Segments, and Lines Look at the picture that follows.

- Trace any lines you see in green.
- Trace any rays you see in orange.
- Trace any line segments you see in blue.





Lesson (3): Types of Lines:

Perpendicular Lines (Orthogonal lines)	Parallel Lines	Intersecting Lines
1. Intersect at 1 point. 2. Make 4 right angles. 3. $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$ or $\overleftrightarrow{CD} \perp \overleftrightarrow{AB}$.	1. $\overleftrightarrow{AB} // \overleftrightarrow{CD}$ or $\overleftrightarrow{CD} // \overleftrightarrow{AB}$. 2. Intersect at 0 points 3. Never intersecting.	1. Intersect at 1 point. 2. M is the intersection point 3. Make 4 angles: 2 acute, 2 obtuse.

Complete:

(1) Any two lines that never intersect are called ....

(2) Any two lines that intersect at a point and make four right angles are called ....

(3) The two intersecting lines intersect at .... point (s).

(4) The two parallel lines intersect at .... point (s).

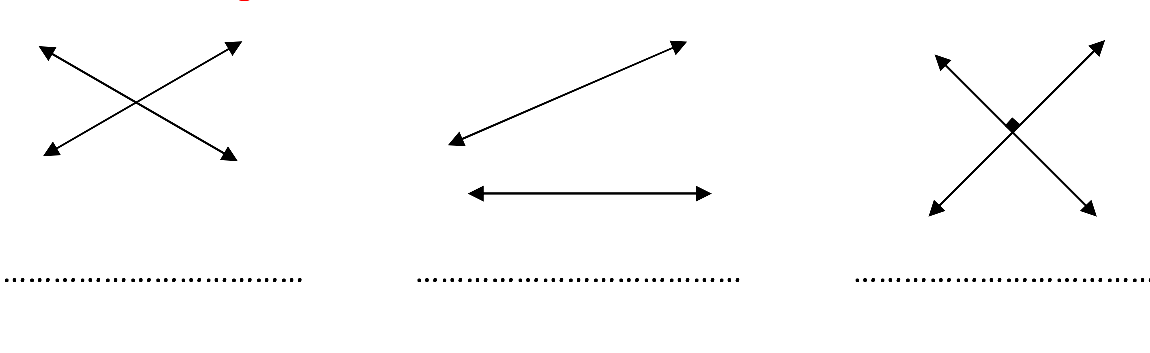
(5) The two parallel lines make .... angles.

(6) Two lines, if one angle at the intersection point of them is right, then the two lines are called ....

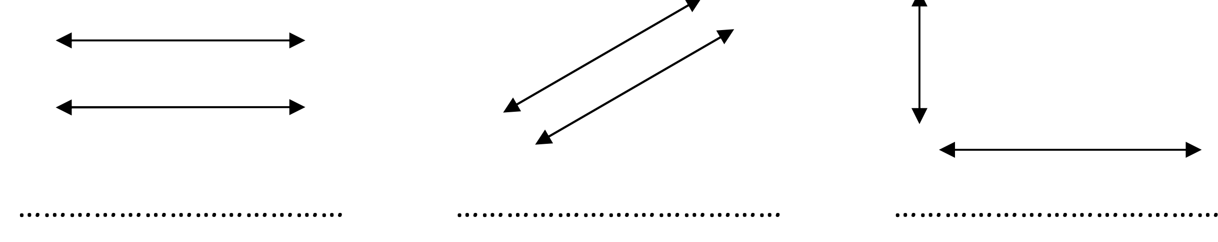
(7) Two lines, if one angle at the intersection point of them is acute, then the two lines are called ....



Write (parallel, perpendicular or intersecting) to describe each two straight lines:



....

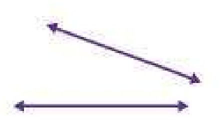


....

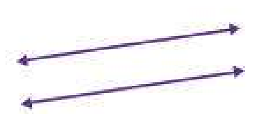




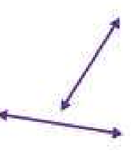
Intersecting or Not? Look at the pairs of lines and rays in the pictures below. For each picture, extend the lines or rays see if the line segments are intersecting or parallel. Hint: Rays can only extend in one direction.

1. 

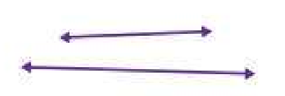
____

2. 

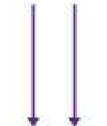
____

3. 

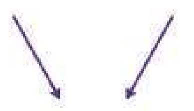
____

4. 

____

5. 

____

6. 

____



Writing About Math Decide whether each statement is true or false. Explain your reasoning.

1. All intersecting lines are perpendicular.

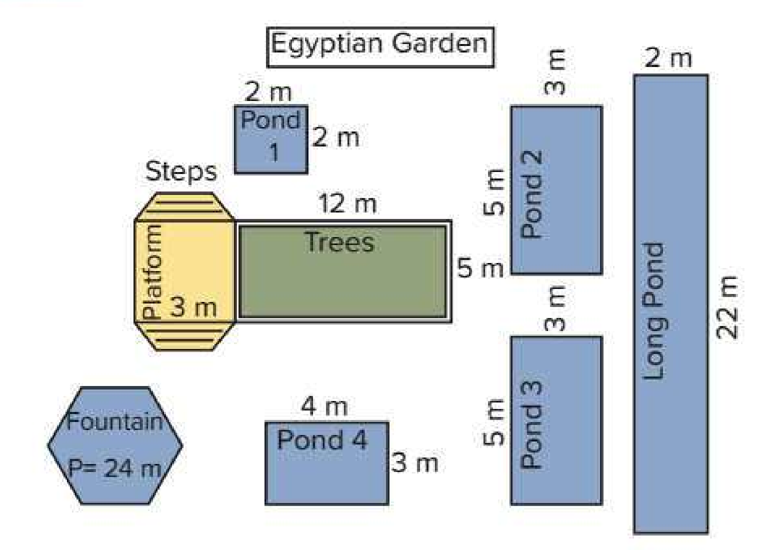
2. Two lines that never intersect must be parallel.

3. All perpendicular lines are intersecting lines.



Lesson (4): Area and Perimeter of Polygons:

Analyzing a Garden Use the drawing to answer questions about perimeter and area.



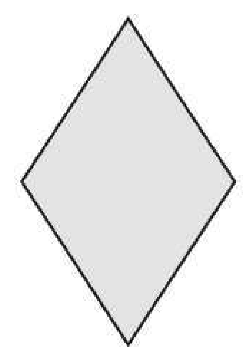
1. What is the area of Pond 1? ______________
2. What is the perimeter of Pond 4? ______________
3. What is the area of the center section of trees? ______________
4. What is the area of the long pond? ______________
5. What is the perimeter of Pond 3? ______________
6. What is the perimeter of Pond 2? ______________
7. The perimeter of the fountain is 24 meters. If each side is the same length, what is the length of each side? Explain how you know. ______________
8. What section of the garden has an area of 12 square meters? ______________
9. What is the combined perimeter of Ponds 2 and 3? ______________
10. **Challenge:** What is the area of the platform? How did you find your answer?

____

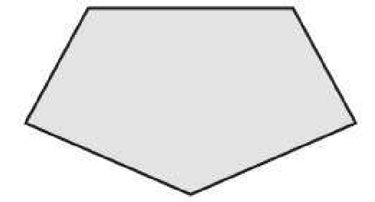


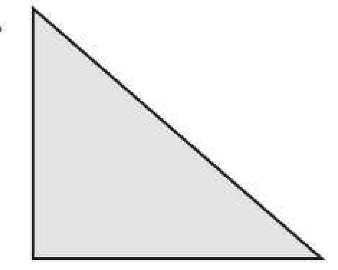


1. Which shape is a pentagon?

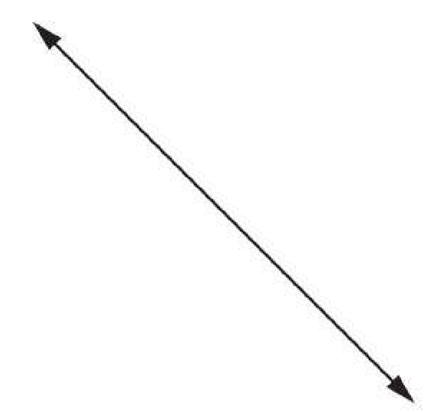
A. 

B. 

C. 

D. 

2. What is the name of this object?



A. Point

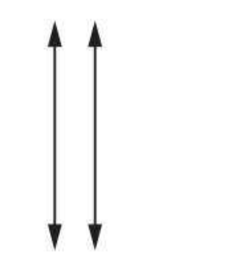
B. Line

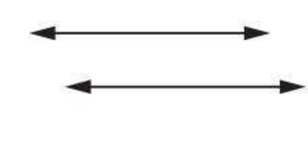
C. Line segment

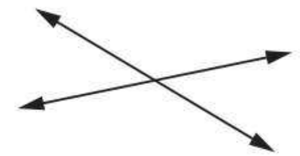
D. Ray

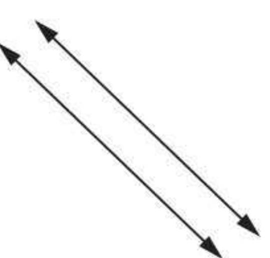


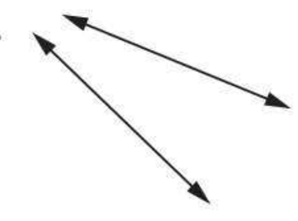
3. Which of these show intersecting lines? Select *two* correct answers.

A. 

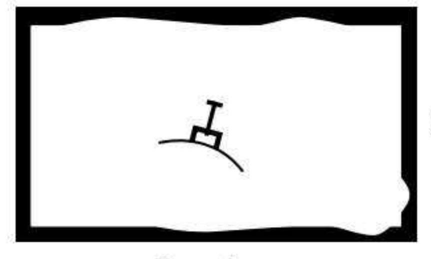
B. 

C. 

D. 

E. 

4. Fatma's sandbox is 3 meters wide and 5 meters long. What is the area of the sandbox?



A. 5 square meters

B. 8 square meters

C. 15 square meters

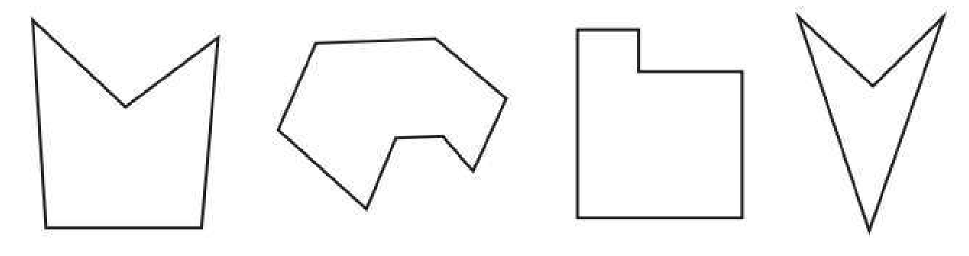
D. 16 square meters



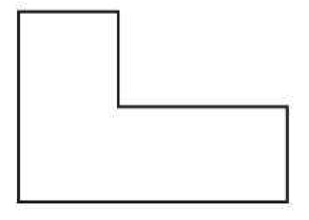


Homework

1. Circle the octagon.

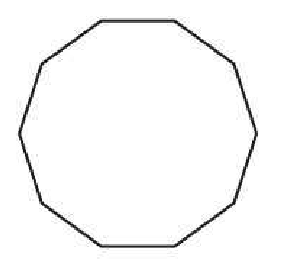


2. What shape is this?



3. True or false: A quadrilateral has 4 sides and 3 angles.

4. Record the attributes of this shape.



Sides: ____________ Vertices: ____________

5. True or false: A polygon has the same number of sides as angles.



Draw a line to match the name to the picture. Some pictures do not have a match. Label pictures that do not have a match (for example, line segment ST or TS).

$\overleftrightarrow{LM}$

$\overrightarrow{LM}$

$\overline{LM}$

$\overrightarrow{QR}$

$\overleftrightarrow{QR}$

$\overline{QR}$

M L

M L

L M





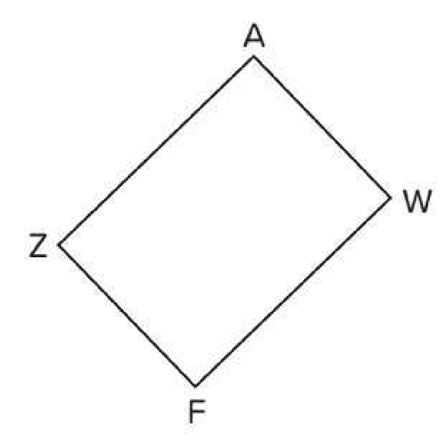








Use the shape to answer Questions 1 and 2.



1. Look at the shape. Name two perpendicular line segments.

2. Look at the shape. Name two parallel line segments.

3. Draw Line AB so that it is parallel to Line CD.

4. Draw Ray WX so that it is perpendicular to Line Segment YZ.



1. Mohamed walks around the perimeter of the park every day. The length of the park is 15 meters and the width is 12 meters. How many meters does Mohamed walk every day?

2. If you are measuring the amount of carpet you will need to cover an entire room, you are determining the ____________________ of the room.

3. Use a ruler to draw a rectangle that has a length of 8 centimeters and a width of 4 centimeters.

4. What is the area of the rectangle you drew?

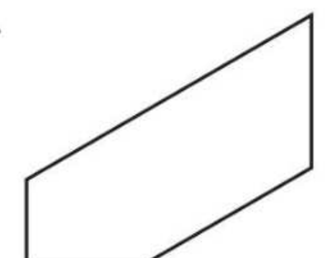
5. What is the perimeter of the rectangle you drew?

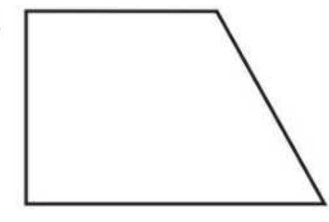


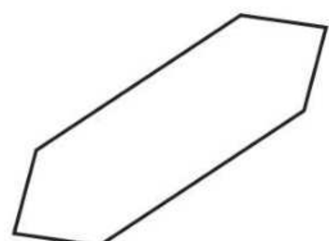


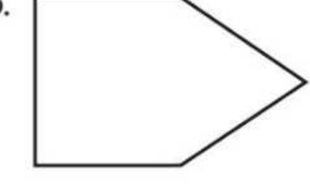
1. Aya drew a figure with the following attributes:
   - The figure is a pentagon.
   - Two pairs of sides are perpendicular.
   - One pair of sides is parallel.

   Which could be the figure Aya drew?

A. 

B. 

C. 

D. 



2. Which of these are rays? Select *two* correct answers.

A. 

B. 

C. 

D. 

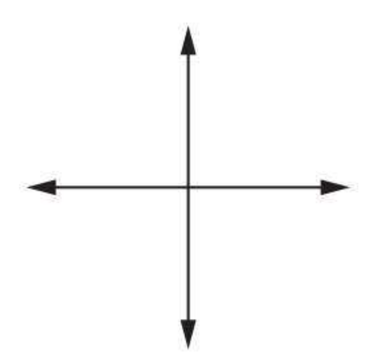
E. 

F.





3. Which term *best* describes the lines?



A. Line segments

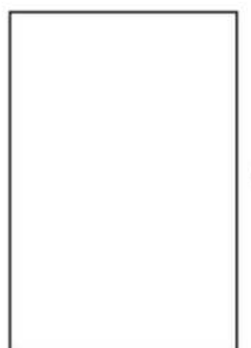
B. Unequal lines

C. Parallel lines

D. Perpendicular lines



4. Fill in the blanks below with the correct answer choice from each group.
Hossam uses a box with a lid that is 8 centimeters wide and 12 centimeters long. How can he find the area of the lid?



12 centimeters

8 centimeters

A.

4
8
20
96

B.

4
12
40
96

C.

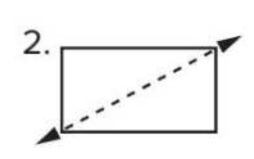
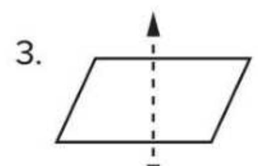
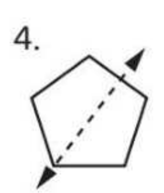
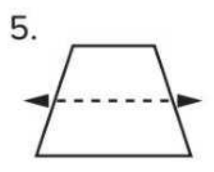
8
12
40
96

He can multiply **A.** ____________ by **B.** ____________ to find that the area is **C.** ____________ square centimeters.



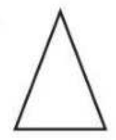
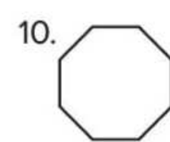
Lesson (5): What Is Symmetry?

Lines of Symmetry For Problems 1–5, look at each shape. Determine if the line drawn is a line of symmetry. Circle the shapes that show a line of symmetry.

1. 
2. 
3. 
4. 
5. 



For Problems 6–10, look at each shape. Draw one line of symmetry for each one. (Hint: One shape has more than one line of symmetry.)

6. 
7.
8. 
9.
10. 



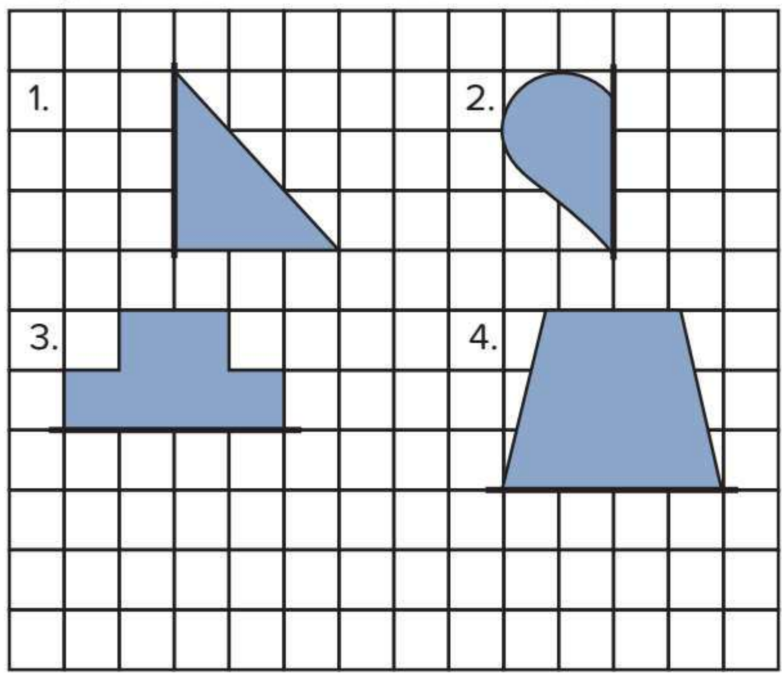
Symbol Symmetry Look at each symbol. Some of the symbols are symmetrical, but some are not. Draw lines of symmetry in the symmetrical symbols. Some symbols may have more than one line of symmetry.

1. 
2. G
3. A
4. W
5. Z
6. p
7. 
8. v
9. !
10. {
11. d
12. b
13. “
14. x
15. %



Lesson (6): Creating Symmetrical Images:

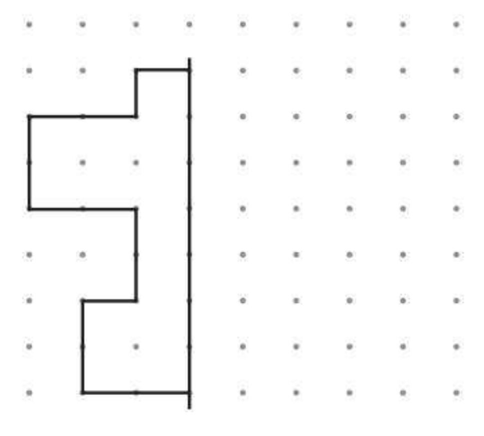
Creating Symmetrical Shapes In each picture, you can see half of the shape and the line of symmetry. Use that information to draw the rest of each shape.



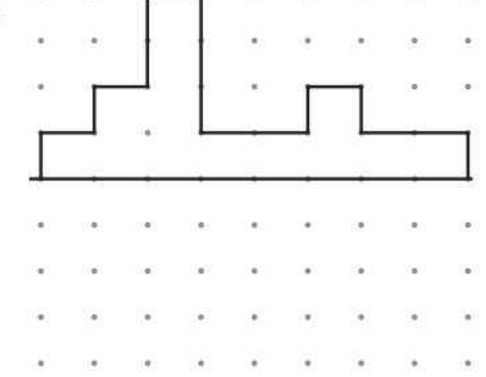


You are shown half of an image and the line of symmetry. Draw the rest of the image to complete the shape.

1.



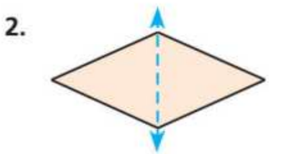
2.

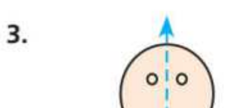




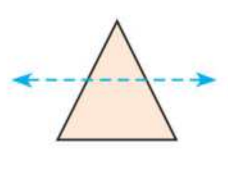


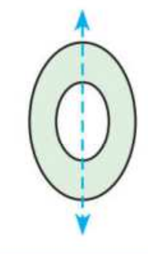
Tell whether the parts on each side of the line match. Is the line a line of symmetry? Write *yes* or *no*.

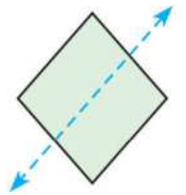
1.  ______

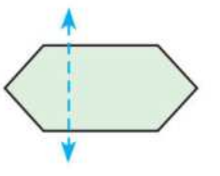
2.  ______

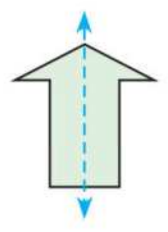
3.  ______

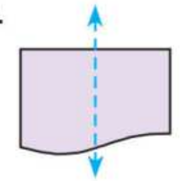
4.  ______

5.  ______

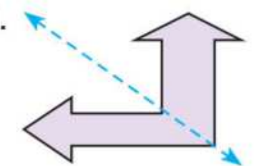
6.  ______

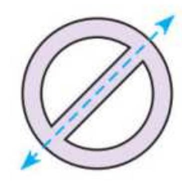
7.  ______

8.  ______

9.  ______

10. ______

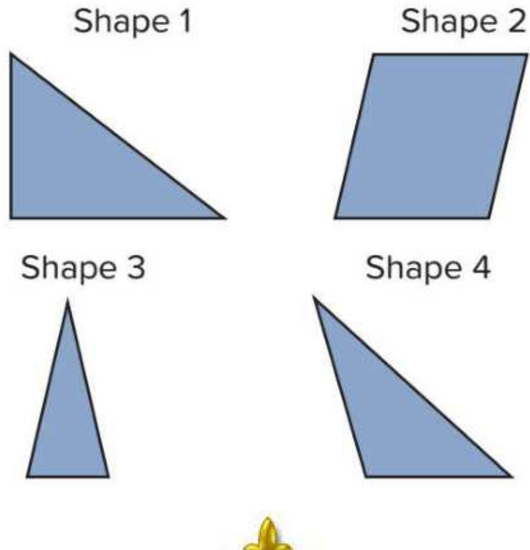
11.  ______

12.  ______



Lesson (7): Real-World Geometry, Part (1):

Which One Does Not Belong? Look at the shapes with a partner. Choose which one does not belong. Write down your explanation. (You do not have to agree with your partner.)







Geometry Park

Park

football (soccer) field

120 m

80 m

Garden

Statue

Pond

Gazebo

Restrooms

Playground

Benches

Geometry Park Look at the picture of the park on the following page, and then follow the directions.

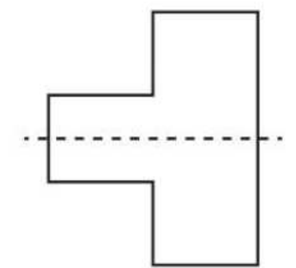
1. Color two perpendicular lines blue.
2. What shape are the restrooms?
3. Color two parallel lines green.
4. How many quadrilaterals are in the park?
5. Color two intersecting lines red.
6. Circle and label three different two-dimensional shapes.
7. Find the perimeter and area of one of the football pitches.
8. Draw at least one line of symmetry on the garden, the gazebo, and the statue.

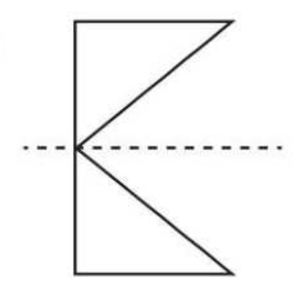


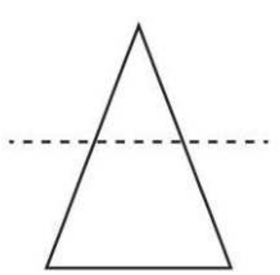


Homework

Circle the shapes that show a line of symmetry.

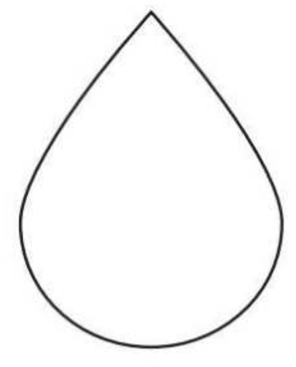
1. 

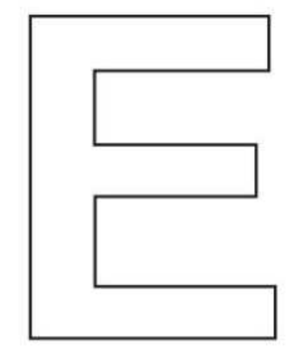
2. 

3. 



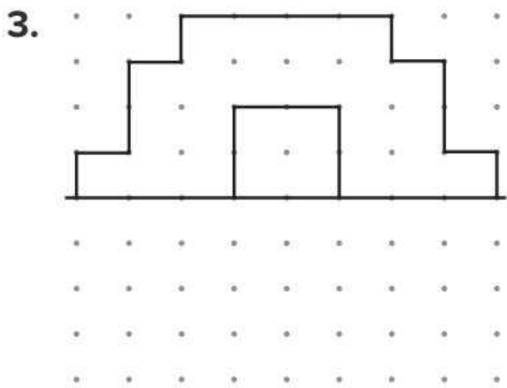
Draw a line of symmetry for each shape.

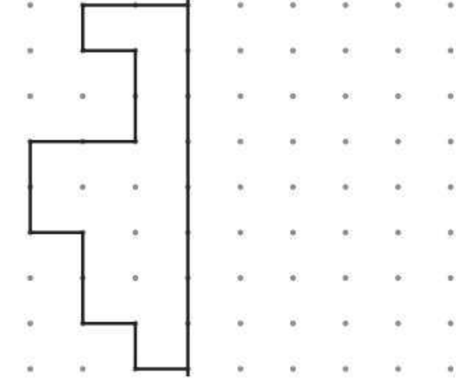
4. 

5. 



You are shown half of an image and the line of symmetry. Draw the rest of the image to complete the shape.

3. 

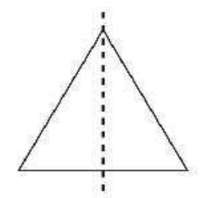
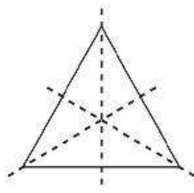
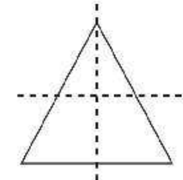
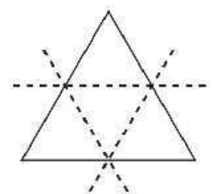
4. 



5. **Is the flag of Egypt is symmetrical? Explain your thinking.**

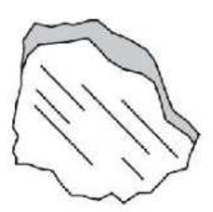
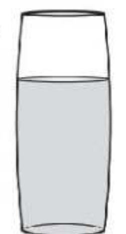


Select the answer choice that shows all the lines of symmetry in the figure.

A. 
B. 
C. 
D. 

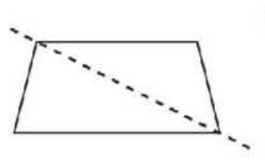
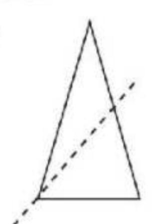
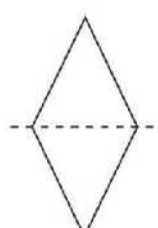
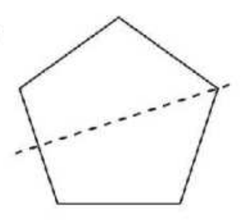
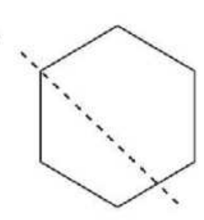


Which objects are symmetrical? Select *three* correct answers.

A. 
B. 
C. 
D. 
E. 



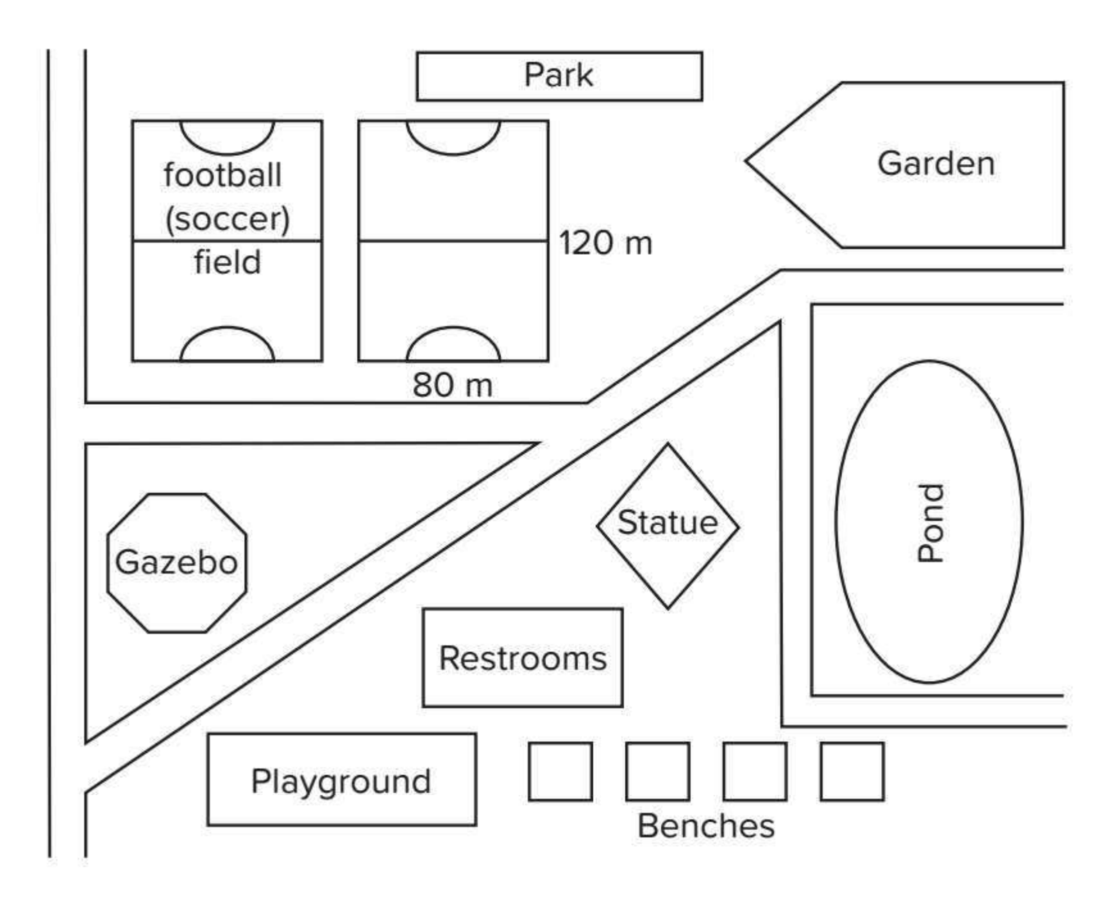
Which figures show a correct line of symmetry drawn?
Select *two* correct answers.

A. 
B. 
C. 
D. 
E. 





Use the picture of Geometry Park to answer the questions that follow.



1. The length of the playground is 18 meters and the width is 10 meters. What is the perimeter of the playground?

2. How would you describe the paths around the pond?
   Circle all that apply:

   parallel intersecting perpendicular

3. What is the shape of the gazebo?





Fill in the blanks below with the correct answer choice from each group.

Is this object symmetrical? Explain.



A.

symmetrical
not symmetrical

B.

diagonal
vertical
horizontal

C.

match exactly
never overlap

The fork is **A.** ______________________ because the figure can be folded along

a **B.** ______________________ line and the two pieces will

C. ______________________.

